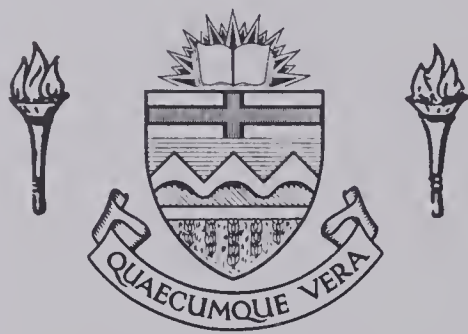


# For Reference

---

NOT TO BE TAKEN FROM THIS ROOM

Ex LIBRIS  
UNIVERSITATIS  
ALBERTAENSIS













THE UNIVERSITY OF ALBERTA

AN INTERNATIONAL COMPARISON OF PETROLEUM  
REGULATIONS

BY



WILLIAM J. GALLIVAN

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTER OF ARTS

DEPARTMENT OF ECONOMICS

EDMONTON, ALBERTA

FALL, 1970



Thesis  
1970 F  
89

UNIVERSITY OF ALBERTA  
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "An International Comparison of Petroleum Regulations" submitted by William J. Gallivan in partial fulfillment of the requirements for the degree of Master of Arts.



## ABSTRACT

The purpose of this thesis is to analyse the principal legal and financial conditions of petroleum concessions in Alberta and Canada as well as in nine other major producing countries in the non-Communist world. The economic significance of these arrangements, particularly those relating to tax concessions, is examined with special reference to government revenues, resource allocation and international capital flows. The existing incentives available to Canadian producers for the encouragement of petroleum exploration are critically reviewed as to their efficiency in accomplishing this objective.

The principal conclusions of this study are: only the rapid write-off of exploration costs, of the present Canadian incentives available to oil producers, is economically efficient in encouraging further exploration; the Canadian percentage depletion allowance is a most expensive incentive and is, along with the immediate expensing of development costs and the shareholders' depletion allowance largely ineffective in encouraging exploration and investment in the industry.





## ACKNOWLEDGEMENTS

Grateful appreciation is expressed to my supervisor, Prof. Bruce W. Wilkinson for his continued guidance during the writing of this thesis and for his generous advice throughout my M.A. program.

I also thank Prof. S. E. Drugge and Prof. E. H. Shaffer for carefully reading the manuscript and offering many valuable suggestions for its improvement.

My greatest debt of thanks goes to my wife Winnifred and our son Bobby for their many sacrifices and especially for making it all worth while.



## TABLE OF CONTENTS

INTRODUCTION	1
CHAPTER	PAGE
I. ALBERTA AND CANADA	5
Background of Canadian Federal and Provincial Leasing, Royalty and Taxation Arrangements (5)	
Alberta (7)	
Canadian Federal Provisions (14)	
II. UNITED STATES	23
Background (23)	
Leases and Royalties (24)	
Income Taxes (32)	
III. VENEZUELA	46
Background (46)	
Leases (47)	
Royalties and Taxes (49)	
Income Taxes (50)	
Economic Conditions and Implications of Concessions (54)	
Comparison of Canadian-Venezuelan Petroleum Taxation (57)	
IV. MIDDLE EAST	63
Background (63)	
Iran (64)	
Iraq (69)	
Kuwait (73)	



CHAPTER	PAGE
Qatar (78)	
Saudi Arabia (82)	
Economic Implications of Concessions (87)	
Comparison of Canadian-Middle Eastern Petroleum Taxation (90)	
V. NORTH AFRICA	93
Background (93)	
Libya (94)	
Algeria (100)	
Nigeria (106)	
Economic Implications of Concessions (112)	
Comparison of Canadian-North African Petroleum Taxation (119)	
VI. ECONOMIC RENT AND APPRAISAL OF CANADIAN CONCESSIONS	122
Economic Rent (123)	
Percentage Depletion (127)	
Exploration and Development Expenses (139)	
Treatment of Business Losses (144)	
Shareholders' Depletion Allowance (146)	
Effect of Tax Concessions on Capital Flows (147)	
Conclusions (150)	
BIBLIOGRAPHY	158



## INTRODUCTION

The history of petroleum concessions in the major producing countries of the non-communist world is intricately interwoven with the political, economic and social developments of the various areas. Although such developments are of great interest, the scope of this thesis is essentially concerned with the present state of concessions in the nations which currently dominate world production with respect to their juridical and financial conditions and the comparative analysis of financial arrangements particularly in relation to Canadian provisions.

In examining the petroleum laws and regulations in Canada, the principal provisions of the province of Alberta are first analysed since this province is by far the most important domestic producer and as a result of the legislation establishing the Dominion of Canada in 1867 control of all lands, mines, minerals and royalties has remained within the jurisdiction of the respective provinces. Canadian federal provisions apply to those areas including National Parks, Indian Reservations, lands under the Veterans' Land Act, the Yukon Territory and the Northwest Territories. The main discussion from a federal standpoint is concerned with the special Canadian tax treatment available to oil operators specifically the liberal deductions permitted in computing taxable income, the unique Canadian





percentage depletion allowance and the select treatment of mineral producers in the regulations concerning business losses.

The other ten countries considered in this study are the United States; Venezuela; the Middle Eastern Nations of Iran, Iraq, Kuwait, Qatar and Saudi Arabia; and the North African countries of Algeria, Libya and Nigeria. The basic approach in each of these discussions is essentially the same, namely, first examining the existing legislation in terms of leasing, royalty and taxation arrangements. The economic implications of these regulations, particularly tax concessions, are surveyed for each of the individual countries especially as relating to government revenues, resource allocation and capital flows. Finally, a comparative analysis of taxation concessions of these individual or group of countries is given in relation to Canadian taxation arrangements.

Canada is one of the more recent arrivals on the international petroleum scene. Its principal legislation was enacted both federally and provincially (Alberta) as recently as 1962. On the other hand, United States' petroleum activities are governed by the Mineral Leasing Act of 1920, the Acquired Lands Leasing Act of 1947, the Outer Continental Shelf Act of 1953 and their amendments. The remaining countries in this study, except Algeria and



Nigeria, all became members of the Organization of Petroleum Exporting Countries (OPEC) in the early sixties.<sup>1</sup> In the present context this organization had its greatest significance during the mid-sixties when agreement was reached between oil companies and OPEC members on the expensing of royalties rather than their treatment as a credit against income tax as had previously been the case. Regulations in Algeria are closely tied to the Evian Agreements of 1962 by which the country became independent and clearly indicate its association with France. Nigeria's legislation is governed by the Petroleum Decree No. 51 enacted late in 1969 whereby the military government decreed that the entire control of petroleum be in the hands of the state.

The special attention given Canada in this study culminates in the final chapter with an overall analysis of the economic content of petroleum concessions in this country. The implications and effectiveness of the rapid write-off of exploration and development expenditures, the treatment of business losses, the shareholders' depletion allowance and especially the Canadian percentage depletion allowance are discussed in the context of their effect on resource allocation, capital flows (especially vis-a-vis the United States) and as they relate to the level of

---

<sup>1</sup>Algeria was admitted as a member of OPEC in mid 1970.



exploration activities in Canada. The views of the most recent in-depth study in this regard, the Carter Royal Commission on Taxation, are drawn upon to aid in this analysis and the desirability of some of the present concessions questioned. Finally, where concessions are deemed necessary recommendations are made to improve their efficiency in accomplishing the objective of increasing petroleum exploration in Canada.



## CHAPTER I

### ALBERTA AND CANADA

#### Background of Canadian Federal and Provincial Leasing, Royalty and Taxation Arrangements

The present system of land tenure in Canada is a direct result of the historical background of the country, as the power of the government of Canada is divided between the Federal and Provincial governments. Both governments are large land owners and both have specific controls or rights over certain phases of the oil and gas industry.

The legislation establishing the Dominion of Canada in 1867, The British North America Act, allowed control of all lands, mines, minerals and royalties to remain within the jurisdiction of the respective provinces entering Confederation. Of the remaining portions of the country, the Federal government made certain grants of mineral rights to private individuals and large corporations between Confederation and 1887. After the latter date no such grants were made by the Federal government. In 1930 rights still retained by the Federal government were turned over to those provinces not having complete rights, with the exception of National Parks, Indian Reservations and lands under the Veterans' Land Act. Consequently, the major part of the land in the oil provinces of western Canada is







retained and owned by the respective Provincial governments and that of the Yukon and the North West Territories by the Federal Government.

Both the Provincial and Federal governments, in their capacities as lessors, have large areas of prospective oil and gas lands which they may dispose of by some contractual means -- preferably by permit and lease. Specific legislation has been passed by the various governments setting out in detail the terms under which these lands may be explored and subsequently leased.

The division of legislative authority between the Federal and provincial governments is contained in The British North America Act where the Federal government's power is limited only by the power assigned to the provinces by the Act. Two general references in Section 92 of the Act grant the Provinces power over "all matters of a merely local or private nature in the Province" and "property and civil rights" in the Province. This gives each Province the power to regulate all oil and gas found within it. However, international and interprovincial lines of transport and communication were retained by the Federal authority so that interprovincial and international pipelines come under Federal jurisdiction. The national government also has control over the export of oil and gas. Thus, regulatory control of oil and gas outside the



Provinces comes within the sphere of the Federal government.<sup>1</sup>

## Alberta

### Leases

Under Part V of the Mines and Minerals Act of 1962<sup>2</sup>, the petroleum and natural gas rights that are the property of the Crown and available for disposition may be leased at an annual rental of one dollar per acre, payable yearly in advance.

The maximum area of a location in the form of a square is nine sections (5,760 acres). When rectangular, the maximum is eight sections (5,120 acres) and is not to exceed four sections in length. The minimum area is one quarter section (160 acres).

A lease grants the right to the petroleum and natural gas in the location but does not grant the right to bituminous sands or to the petroleum and natural gas that may be recovered therefrom. When a lessee, through the drilling of a well, proves to the Minister that his location is within a natural gas field the annual rental may be reduced to fifty cents an acre for so long as the location

---

<sup>1</sup>Petroleum Legislation II, Canada (New York, N.Y.: Gordon H. Barrows, 1970), pp. 1-2.

<sup>2</sup>E. C. Hodgson, Digest of Mineral Laws of Canada (Ottawa: Mineral Resources Division, Department of Energy, Mines and Resources, 1968), p. 55.



is capable of producing natural gas in commercial quantities. Further, so long as an adequate market in which the lessee may participate is not available, the annual rental may be again reduced to twenty-five cents an acre. If a discovery of petroleum is made on the location the reduction in rental ceases.

The term of a "petroleum and natural gas lease" is ten years and may be continued if commercial production is achieved. The maximum royalty is one-sixth of production.

A "natural gas lease" may be granted where a well produces gas either alone or with oil at a gas-oil ratio of 10,000 cubic feet to the barrel or higher. The term of the lease is twenty-one years at an annual rental of 33 1/3 cents per acre and is renewable. The maximum royalty remains at one-sixth of production.

Likewise, a "petroleum lease" may be granted where production is of oil alone or at a gas-oil ratio of less than 10,000 cubic feet to the barrel. The term is also twenty-one years at an annual rental of 33 1/3 cents per acre and is renewable. The maximum royalty is again one-sixth of production.

#### Petroleum and Natural Gas Drilling Reservation Regulations

A reservation grants the right to drill wells for petroleum or natural gas and the right to produce them.





One reservation area may not exceed one hundred thousand acres and the term of a reservation is four months with six renewals possible. One person may group his reservations for work purposes to a combined acreage not in excess of 200,000 acres. The rental is 25 cents per acre for each six month period.

#### Permit Regulations

A permit conveys the right to drill wells for both petroleum and natural gas in lands that are the property of the Crown and the right to produce them. The maximum permit area is thirty-six sections (23,040 acres), the term of the permit is six months with three renewals permitted and the rental fee is fifty cents per acre for each renewal.

#### Natural Gas Licence Regulations

Upon drilling wells determining the presence of natural gas, the holder of a reservation or permit of petroleum and natural gas rights may apply for a licence which allows the holder to drill wells for natural gas in lands contained in the licence and the right to produce the same. The maximum area of a licence is thirty-six sections for a term of six months which may be renewed for five periods of similar duration upon payment of rental of five cents an acre for each renewal.<sup>1</sup>

---

<sup>1</sup>Ibid., p. 56.





### Royalties

The petroleum and natural gas obtained from any location is subject to a payment to the Crown. The amount of such royalty during the initial ten year term of a lease varies on a sliding scale from 8 per cent to 16 2/3 per cent of the production obtained from the location based on the selling price or fair value at the time and place of production. The specific breakdown is given on page 12 of this chapter.

### Crown Reserves

In March of 1941 some fifteen areas comprising 14,112 square miles were established in the province of Alberta as provincial reserves and the petroleum and natural gas rights in these reserves subsequently became known as Crown reserves. Six of these areas have been discontinued but nine still exist. The petroleum and natural gas rights in Crown reserves are disposed by offering to the public in the form of leases, drilling reservations or natural gas licences or as ordinary reservations in provincial reserves. Revenues from bonuses accepted from the sales of Crown reserves have formed a major part of the revenues received by the Department of Mines and Minerals from petroleum and natural gas.



Schedule of Fees<sup>1</sup>  
Mines and Minerals Act

Application for:

petroleum and natural gas lease	\$10.00
natural gas lease	10.00

Transfer of:

petroleum and natural gas lease	10.00
natural gas lease	10.00
reservation of petroleum and natural gas	10.00
natural gas licence	10.00

Renewal of:

petroleum and natural gas lease	10.00
natural gas lease	10.00

Oil Prospecting Permit:

application fee	250.00
rental for one year, per acre	.05
deposit	50,000.00
second and third year renewal rental, per acre	.10

Crown Reserve Natural Gas Licence or  
Natural Gas Licence:

fee	250.00
rental first six months, per acre	.05
five renewals, six months each, rental per acre	.05

Crown Reserve Drilling Reservation  
Regulations:

fee	250.00
rental first six months, per acre	.25
five renewals, six months each, rental per acre	.25

Petroleum and Natural Gas Permit:

fee	10.00
rental first six months, per acre	.50
three renewals, six months each, rental per acre	.50

Petroleum and Natural Gas Reservations:

fee	250.00
deposit, each 20,000 acres	2,500.00

---

<sup>1</sup>Ibid., p. 66.



## Petroleum and Natural Gas Lease:

fee	10.00
rental per acre annually	1.00

## Natural Gas Lease:

fee	10.00
rental annually per acre	33 1/3

Royalties:<sup>1</sup>

## a) Crude Oil:

<u>Monthly Production (barrels)</u>	<u>Crown Royalty per Month</u>
0 - 750	8% of barrels produced
750 - 2700	60 barrels plus 20% of barrels over 750
2700 and over	16 2/3% of barrels produced

b) With respect to other fluid hydrocarbons and sulphur obtained by processing natural gas: 16 2/3%.

c) With respect to natural gas or residue gas sold or consumed for some useful purpose, 16 2/3% of the selling price or fair value provided that in no event shall the royalty be less than 3/4 of a cent per 1,000 cubic feet, unless the Minister otherwise directs where such gas is processed to obtain liquid hydrocarbons, sulphur compounds or carbon dioxide.

Taxation

Under the terms of the Mineral Taxation Act of 1955 and its subsequent amendments provision is made for two forms of taxation on petroleum and natural gas: a mineral acreage tax and a producing area tax.

The mineral acreage tax applies to every owner with

---

<sup>1</sup>D. E. Lewis and A. R. Thompson, Canadian Oil and Gas, Statutes and Regulations: Alberta (Toronto: Butterworth & Co. (Canada) Ltd.), Sec. 7.5a.





the maximum rate set at five cents per acre but may be fixed at a lesser rate.

The producing area tax is levied on the assessed value of all principal minerals in each producing area. Producing areas are designated as such by the Minister from time to time. The present rate of the tax is eight mills on the dollar. The principal mineral within a producing area is assessed under the Act at the fair actual value which is computed in accordance with the following schedule:

The fair actual value for the purpose of assessment, in any year, of the petroleum within, upon or under the land allocated by the Minister to a well producing petroleum or petroleum and natural gas shall be 1.5 times the value, at the average field price during the first three months of the year in which the assessment is made, of all petroleum produced from the well during the preceding year.

The fair actual value for the purpose of assessment in any year of the natural gas within, upon or under the land allocated by the Minister to a well producing either natural gas alone or both petroleum and natural gas shall be four times the value at 3 cents per 1,000 cubic feet of the natural gas produced from the well during the preceding year.<sup>1</sup>

Where petroleum and natural gas is subject to a lease it is customary for the lessee to reimburse the mineral owner seven-eighths of the producing area tax.

#### Oil and Gas Conservation Act

The purposes of the Oil and Gas Conservation Act (Alberta), administered by the Oil and Gas Conservation

---

<sup>1</sup>E. C. Hodgson, op. cit., p. 64.





Board, are to effect the conservation of the oil and gas resources of the Province and to prevent their waste, to secure the observances of safe and efficient field practises and to afford each owner the opportunity of obtaining his share of the production of any pool.

The act applies to all wells drilled in the province whether on Crown land or freehold property. A well may be drilled only after a licence has been issued to a person or a company entitled to the oil or gas at a fee of fifty dollars. A deposit must accompany the application for a licence in the amount of \$2,500 for one well and increased amounts for more than one well to a maximum of \$10,000 for seven or more wells. Board inspectors make frequent checks on field operations to ensure that regulations are being followed during drilling and production.<sup>1</sup>

#### Canadian Federal Provisions

The division of responsibility for the petroleum and natural gas rights within the Federal Government Departments needs explanation.<sup>2</sup> The division of federal responsibilities in these basic areas is not reflected in the Government Organization Act of 1966 which defines the duties, powers and functions of the Departments of Indian Affairs and

---

<sup>1</sup>Ibid., pp. 58-59.

<sup>2</sup>D. E. Lewis and A. R. Thompson, Canadian Oil and Gas, Statutes and Regulations: Federal, op. cit., Sec. 1A.



Northern Development and the Department of Energy, Mines and Resources. However, it is established in the Order-in-Council which was passed December 22, 1965 whereby:

- a) The water areas have been placed with the land in the Arctic archipelago where land is the most extensive and important element under the jurisdiction of the Department of Indian Affairs and Northern Development, and
- b) The more southerly land and water areas including the Hudson Bay area where the water areas are very much larger than the islands have been placed under the jurisdiction of the Department of Energy, Mines and Resources.

The dividing line runs substantially along the south coast of Baffin and Southhampton Islands, the northwest coast of Hudson Bay, and westward along the 60th parallel.

The Canada oil and gas land regulations were made under the Territorial Lands Act and the Public Lands Grants Act in 1962. They apply to Canada lands, which are defined as being all lands owned by the Crown in the right of Canada not within any province, including both the Yukon Territory and the Northwest Territories.<sup>1</sup> Mineral rights are granted by the department in the form of exploratory licences, exploratory permits and oil and gas leases.

---

<sup>1</sup>The rights and regulations with respect to minerals on an Indian Reserve differ somewhat from those made under the Territorial Lands Act and the Public Lands Grants Act. The appropriate legislation comes under the Indian Act and is excluded from discussion here.



### Exploratory Licence

Licences may be issued upon payment of a fee of twenty-five dollars to any person who has reached the age of twenty-one years or to a company incorporated or licenced to do business in Canada. Licences authorize the holder to search for oil and gas on Crown lands by geological or geophysical examinations, aerial mapping and investigation of the subsurface. Licencees may not drill a hole deeper than 1,000 feet without specific permission.

### Exploratory Permits

Permits may be issued to any person who has reached the age of twenty-one years or to a company incorporated or licenced to do business in Canada. A permittee must also hold a licence to carry out exploratory work on the permit area. The number of permits one person may hold is not limited. A permit covers a grid area or one-half a grid area. The primary term of a permit is 3, 4 or 6 years depending on its location and may be renewed six times, each time for a period of one year. Subsequent renewals are at the discretion of the Minister.

A permittee must make a deposit to the full amount of the work requirement of a permit at the commencement of a work-permit term or renewal period in an amount increasing from five cents per acre in the early part of a permit term to fifty cents per acre in the latter part. A portion of the deposit equal to allowable exploratory expenditures





carried out on the permit area is returned to the holder of the permit.

Exploratory work off the permit area may be allowed if it is shown that the information obtained is of value with respect to the permit area. Road building, geophysical examination or a contribution to a well drilled outside the permit area may be allowed if prior approval is obtained.<sup>1</sup>

### Leases

Leases may be granted by application accompanied by a fee of ten dollars only to Canadian citizens over twenty-one years of age or to companies incorporated in Canada. A lease will not be issued to a corporation unless:

- 1) At least fifty per cent of the issued shares of the corporation are beneficially owned by persons who are Canadian citizens,
- 2) The shares of the corporation are listed on a recognized Canadian stock exchange and Canadians have an opportunity of participating in the financing and ownership of the corporation, or
- 3) The shares of the corporation are wholly owned by a corporation that meets the qualifications outlined in 1) and 2).

---

<sup>1</sup>E. C. Hodgson, op. cit., pp. 12-13.





Commercial production of oil and gas can be carried out only if the lands involved are under lease. A permittee may acquire leases covering up to fifty per cent of the area within a permit, and may acquire leases covering the remainder by paying an extra royalty on additional leases.

The rental is fifty cents per acre for the first year of an oil and gas lease, and one dollar per acre for each subsequent year. The rental payable may be reduced by as much as one-half, and the amount of the reduction is the cost of allowable expenditures on exploratory work on the lease area. In years when commercial production has been attained the rental is reduced by the amount of royalty paid in the preceding year. The term of the lease is twenty-one years. A lease in good standing is renewable for successive terms of twenty-one years if commercial exploitation has begun or if the area is capable of producing oil or gas.<sup>1</sup>

### Royalties

In general, a royalty of five per cent of the market value at the well-head is payable monthly during the first three years of commercial exploitation where the leased area lies south of latitude 70° north. In the case of all other areas, including those covered by sea coast water,

---

<sup>1</sup>Ibid., p. 14.



a royalty of five per cent of the market value at the well-head is payable monthly during the first three full years of commercial production or the first five years of commercial exploitation. The rate of royalty increases to ten per cent for subsequent years. Royalties on leases carrying extra royalty requirements depend on the location and vary considerably.<sup>1</sup>

### Federal Income Taxation Provisions

In order to be fully entitled to the special Canadian tax treatment available to oil operators, the principal world-wide business of the corporation operating in Canada must be the producing, refining and marketing of petroleum products or the exploring or drilling for petroleum or natural gas. A 1962 amendment to the Income Tax Act provided some tax benefits to corporations and individuals who did not qualify under the principal business rule. This provision allows such entities to deduct drilling and exploration expenses, incurred in Canada, from income received as a result of oil and gas operations.<sup>2</sup>

The special provisions applying to oil and gas include the following deductions in computing income:<sup>3</sup>

---

<sup>1</sup>Ibid., p. 26.

<sup>2</sup>Arthur Anderson & Co., Tax and Trade Guide: Canada, Tax and Trade Guide Series, Vol. VI (Toronto: Arthur Anderson & Co., 1963), p. 53.

<sup>3</sup>M. W. Bucovetsky, The Taxation of Mineral Extraction, Studies of The Royal Commission on Taxation, No. 8 (Ottawa: Queen's Printer, 1964), p. 9.



- 1) Prospecting, drilling, exploration, and development expenses incurred in searching for oil and gas in Canada including all general geological and geophysical expenses. Such expenses do not normally include the cost of property rights (see below), nor of buildings and equipment for which capital cost allowances may be claimed.
- 2) Bonus payments (capital payments for the right to explore for or take petroleum or natural gas) to the Government of Canada or a province, prior to April 11, 1962 and where the rights are surrendered as unproductive.
- 3) Other costs of land rights in Canada, acquired before April 11, 1962, to the extent of \$1.00 per acre per year (annual rental payment).
- 4) The full cost of such land rights for the extraction of petrolrum or natural gas, if acquired by a corporation after April 10, 1962.

A special category of preproduction expenses for wells outside Canada allows for the deduction of drilling expenses from the income of that specific well.

The operator of oil or gas wells is permitted a deduction of 33 1/3 per cent on the taxable income from the aggregate of all such operations net of all allowable deductions (non-operators are entitled to a depletion allowance of 25 per cent based on gross income). The effect is thus to reduce the effective rate of tax by one third. Where there is no taxable profit, there is no "depletion" allowance. Shareholders are also entitled to a percentage allowance. A deduction of 10, 15 or 20 per cent is allowed from shareholders' dividend income when received from a corporation which is resident in Canada,





and more than 25 per cent of whose profit is derived from mineral production. The exact rate allowed depends on the ratio of mineral profits to total profits of the corporation.<sup>1</sup>

Gas or oil well equipment (including buildings) is depreciable at a rate of 30 per cent per annum (diminishing balance) under Class 10 of Schedule B of the Income Tax Regulations rather than under Class 3 (5 per cent) or Class 8 (20 per cent) under which such facilities would otherwise fall. Excluded from Class 10 are refineries, separation plants, well casing and pipelines other than a field gathering system. Pipelines are included in Class 2 (6 per cent) together with property acquired for the purpose of producing or distributing gas that is normally distributed in portable containers and property acquired for the purpose of processing natural gas before delivery to a distribution system. Oil storage tanks are included in Class 6 (10 per cent).<sup>2</sup>

While Canada permits carry-backs and carry-overs of business losses (back one year and forward five years), these provisions seldom apply to oil and gas operators, since Canada allows such operators a special kind of carry-over. The excess of the amount of exploration and

---

<sup>1</sup>Ibid., p. 13.

<sup>2</sup>John G. McDonald, Q.C., op. cit., p. 11.





development expenditures over income received may be carried forward indefinitely until all exploration and development costs have been recovered.<sup>1</sup>

### Personal Income Tax

The income of a resident taxpayer for a taxation year is his income for the year from all sources inside and outside Canada excluding capital gains, unemployment insurance benefits, armed services allowances and family allowances. On dividends received from Canadian taxable corporations, including oil and gas operators, the individual is entitled to a credit against tax otherwise payable equal to 10, 15 or 20 per cent of the dividends received as discussed earlier. Further, where Canadian taxpayers have taxable income from sources within other countries and have paid tax on that income to governments of such countries, they are generally permitted a deduction (Foreign Tax Credit) from the Canadian income tax otherwise payable based on the foreign tax paid. In the case of dividends the credit does not take into account taxes paid by a foreign corporation on the profits out of which the dividend was paid.<sup>2</sup> Dividends paid to non-residents are subject to a withholding tax at rates of either 10 or 15 per cent in specified circumstances.

---

<sup>1</sup>Arthur Anderson & Co., op. cit., p. 55.

<sup>2</sup>Ibid., pp. 59-60, 69-70.



## CHAPTER II

### UNITED STATES

#### Background

As of 1966 approximately one-fourth of the total land area of the continental United States, most of Alaska, and all of the outer continental shelf were held in federal ownership or subject to federal control. Many states own extensive lands and subsoil rights which comprise oil-producing properties. Rights to oil and gas deposits on federally owned lands may be acquired only pursuant to legislation enacted by Congress. Laws by which each of the states govern its oil lands are similar in their provisions to those of the Federal Government<sup>1</sup> and the discussion here is limited to the latter.

Three general statutes, each pertaining to a different category of lands, authorize oil and gas development of Federal Lands: the mineral Leasing Act of 1920 as amended, applicable to the public domain (lands originally owned by the United States pursuant to treaty or cession); The Acquired Lands Leasing Act of 1947, authorizing development of lands acquired by the United States from individuals or states; and the Outer Continental Shelf Act of 1953, which applies to lands of the outer continental

---

<sup>1</sup>Petroleum Legislation II, United States, op. cit., p. 1.



shelf beyond the limit of those deeded to the states.<sup>1</sup>  
Other laws govern leasing of Indian lands and Naval  
Petroleum Reserves and are not discussed here.

### Leases and Royalties

#### The Public Domain

By virtue of the Mineral Leasing Act of 1920 as amended public lands of the United States may now be explored and exploited for oil and gas only through lease. Oil and gas leases are issued by the Department of the Interior through its Bureau of Land Management and supervision of the leases is handled by the Geological Survey of the Interior Department.

Leases may be issued only to citizens of the United States, associations of such citizens, or corporations organized under the laws of the United States, or a state or territory thereof. Although aliens may not acquire any direct or indirect interest in such leases they may own stock in corporations holding leases if the laws of their country do not deny similar privileges to citizens of the United States. Any corporation or subsidiary incorporated under U.S. law, whose voting shares in excess of 10 per cent are owned by aliens, may well be required to provide additional information before any lease is issued to it.

---

<sup>1</sup>Ibid.





A corporate applicant, at any rate, must make full disclosure of its stock ownership so as to show whether stock is owned by aliens and if so the percentage of it so owned.<sup>1</sup>

Leaseholds in any one state (except Alaska) by any individual or group may not exceed 246,080 acres. Alaska has been divided into two leasing districts, northern and southern, separated generally on a line made by the Tanana and Yukon rivers. Leases aggregating not more than 300,000 acres may be held in each district for a total of 600,000 acres.<sup>2</sup>

There are two kinds of leases: noncompetitive and competitive, one of which must be issued before exploratory work involving drilling is permitted. The type of lease depends upon the lands involved. Lands lying within any known geological structure of a producing oil or gas field are subject to lease only by competitive bidding, whereas all other lands may be prospected by noncompetitive "wild-cat" leases in which the lease goes to the first applicant.

#### Noncompetitive leases.

The total area under a single lease may not exceed 2,560 acres or be less than 640 acres except under special circumstances. All such leases are issued for a ten year

---

<sup>1</sup>Ibid., p. 2.

<sup>2</sup>Ibid.





primary term and so long thereafter as oil or gas is produced in paying quantities. Such leases may be extended for an additional two years if actual drilling operations are commenced prior to the end of the primary term or if the lands are embraced in a cooperative unit on which drilling is in progress prior to the expiration of the primary term.<sup>1</sup>

### Rentals

By the Mineral Leasing Act amendment of 1960 The Secretary of the Interior has authority to require rental payments of not less than fifty cents per acre for each year of the lease. This authority is applicable to leases issued on and after September 2, 1960. If any of the land covered by a noncompetitive lease is included in a known geological structure producing oil or gas, the rental will be increased to two dollars per acre or fraction of an acre beginning the first lease year after thirty days' notice to the lessee, unless the lease is committed to an approved cooperative or unit plan which includes a well capable of producing oil or gas, and contains a general provision for allocation of production.<sup>2</sup> There are no producing area taxes in addition to the above rental

---

<sup>1</sup>Ibid., p. 3.

<sup>2</sup>The Rocky Mountain Mineral Law Foundation, Law of Federal Oil and Gas Leases (New York: Matthew Bender, 1970), pp. 207-209.



arrangements in the United States as there are in Canada.

### Royalties

The royalty payable to the United States under noncompetitive leases is 12 1/2 per cent in amount or value of the production removed or sold from the lease and when payable in value must be computed in accordance with regulations promulgated by the Secretary. The royalty owing on production during each calendar month is due on the last day of the following month. Further, the Secretary has the right to demand that such royalty be paid in oil or gas.<sup>1</sup>

A minimum royalty of one dollar per acre is payable at the expiration of each lease year, following the year in which oil or gas is discovered in paying quantities on the land leased. As to unitized leases, minimum royalty becomes payable only with respect to leased land included in a participating area whether the production is from the leased lands or other land in the unit.<sup>2</sup>

### Bonds

A general lease bond not in excess of \$10,000 must be furnished prior to the beginning of drilling operations. Until such a bond is filed all lessees must furnish and

---

<sup>1</sup>Ibid., pp. 214-215.

<sup>2</sup>Ibid., pp. 215-216.



maintain a bond in the amount of \$1,000 with the exception of those noncompetitive lessees holding lands on which a bond is not required by law for the protection of owners of surface rights.<sup>1</sup>

#### Competitive Leases.

Lands within the known geological structure of a producing oil or gas field are divided into leasing blocks or tracts in units not exceeding 640 acres each and offered for lease at a royalty and rental specified in the notice of sale to the qualified offerer stipulating the highest bonus, either by competitive bidding at public auction or by sealed bids. Competitive leases are issued for a primary term of five years and so long thereafter as oil or gas is produced in paying quantities.<sup>2</sup>

#### Rentals

The conditions here are very similar for those set out under noncompetitive leases with the main points being that such rentals are set at not less than fifty cents per acre and The Secretary has the authority to establish rental rates higher than the statutory minimum. The rental, prior to discovery, on competitive leases issued after September 2, 1960, has been set at two dollars per acre or fraction

---

<sup>1</sup>Petroleum Legislation II, United States, op. cit.,  
p. 4.

<sup>2</sup>Ibid., p. 3.





thereof, unless a different rate of rental is specified in the lease.<sup>1</sup>

### Royalties

The royalty payable to the United States on competitive oil and gas leases is fixed by statute at a rate not less than 12 1/2 percent in amount or value of the production removed or sold from the lease. Under the royalty schedule now effective for competitive leases, the lessee agrees to pay to the United States the following royalty on production removed or sold from leased lands:<sup>2</sup>

1) When the average production for the calendar month in barrels per well per day is

not over	50	the royalty shall be 12 1/2%			
over 50 but not over	60	"	"	"	13 %
" 60	"	"	"	"	14 %
" 70	"	"	"	"	15 %
" 80	"	"	"	"	16 %
" 90	"	"	"	"	17 %
" 110	"	"	"	"	18 %
" 130	"	"	"	"	19 %
" 150	"	"	"	"	20 %
" 200	"	"	"	"	21 %

---

<sup>1</sup>The Rocky Mountain Mineral Law Foundation, op. cit., pp. 243-244.

<sup>2</sup>Ibid., pp. 244-245.





over 250 but not over 300	the royalty shall be 22 %			
" 300 " " "	350	"	"	23 %
" 350 " " "	400	"	"	24 %
over 400	"	"	"	25 %

2) On gas, including inflammable gas, helium, carbon dioxide and all other natural gases and mixtures thereof, and on natural or casinghead gasoline and other liquid products obtained from gas; when the average production of gas per well per day for the calendar month does not exceed 5,000,000 cubic feet, 12 1/2 per cent; and when said production of gas exceeds 5,000,000 cubic feet, 16 2/3 per cent of the amount or value of the gas and liquid products produced, said amount or value of such liquid products to be net after an allowance for the cost of manufacture.<sup>1</sup>

As a minimum royalty in lieu of rental, the lessee agrees to pay one dollar per acre each year or if there is production the difference between the actual royalty paid during the year and the prescribed minimum royalty of one dollar per acre. In the case of unitized leases the minimum royalty is payable only on participating acreage.

The lease bond regulations under competitive leases are exactly similar to those under noncompetitive leases.<sup>2</sup>

---

<sup>1</sup>Ibid., p. 245.

<sup>2</sup>Supra, p. 26.



### Acquired Lands

Acquired land were opened for lease under the act of 1947 and amended regulations of 1954. Although many of the regulations are similar for the public domain and acquired lands, the processing procedures differ and an applicant must apply under the correct statute in order to qualify for a lease.<sup>1</sup>

### Outer Continental Shelf

The outer continental shelf refers to all submerged lands lying seaward and outside of the lands beneath navigable waters and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control.<sup>2</sup>

Noncompetitive leases are not authorized as to outer continental lease lands. Leases are issued to the highest responsible qualified bidder at a public letting by sealed bids. When such lands are offered for lease, the bidding may be either the bonus or the royalty. The act provides that the bidding shall be either on the basis of a cash bonus with a fixed royalty of not less than 12 1/2 per cent or on the basis of a royalty not below the specified minimum with a cash bonus as fixed by The Secretary. In all leases issued to date, the bidding has

---

<sup>1</sup>Petroleum Legislation II, United States, op. cit., p. 5.

<sup>2</sup>The Rocky Mountain Mineral Law Foundation, op. cit., p. 324.



been on the basis of the cash bonus with a specified minimum cash bonus per acre and the royalty fixed at one-sixth.<sup>1</sup>

Although there is no limitation on the number of acres which one individual or business can hold under this act at any one time, there is a limit of 5,760 acres which may be held under any one lease. The lessee agrees to pay rentals of a specified amount per acre which have uniformly been \$3.00 per acre offshore Louisiana and \$2.00 per acre offshore Texas. After production has been established, the lessee no longer pays rentals but a minimum royalty which is normally the same amount as the rental.<sup>2</sup>

Prior to the issuance of a lease, the successful bidder must furnish a corporate surety bond in the sum of \$15,000 or a \$100,000 bond covering all outer continental shelf leases held in each of the Gulf of Mexico, along the Pacific Coast or along the Atlantic Coast.<sup>3</sup>

#### Income Taxes

Domestically earned income from oil and gas production is subject to the same rates of taxation, given the nature and size of income of the taxpayer as is domestically earned

---

<sup>1</sup>Ibid., p. 312.

<sup>2</sup>Ibid., pp. 312-326.

<sup>3</sup>Ibid., p. 335.





income from any other source. The distinctive tax provisions applying to income from oil and gas production involving a possible alternative by the affected taxpayer, are:<sup>1</sup>

- 1) The percentage depletion allowance.
- 2) The expensing of intangible drilling costs as incurred.
- 3) The expensing as incurred of dry hole and certain other costs of unsuccessful exploration effort.

1) The right to a depletion allowance depends upon whether the taxpayer has an "economic interest" in the oil or gas well (or other mineral). Acquisition of an economic interest in property entitles the owner to depletion with respect to oil and gas (or other mineral) thereafter extracted. No depletion is allowed in respect of prior production represented by accumulated royalties. A stockholder in a corporation is not entitled to any allowance for depletion of the corporation's property.

Depletion allowances may be computed under either the general rule, i.e., "Cost" or "Unit" depletion or percentage depletion. The former is a method of allocating to each unit of mineral produced during the year its aliquot portion of the basis of all the minerals in the property. The total "Cost" of the minerals produced during the year as thus determined is subtracted from the basis of the property

---

<sup>1</sup>Stephen L. McDonald, Federal Tax Treatment of Income from Oil and Gas (Washington, D.C.: The Brookings Institution, 1963), p. 8.





at the year end. The basis for computing depletion under the general rule is cost adjusted by adding subsequent capital additions and by subtracting the aggregate of depletion deductions allowed. The depletion deduction is obtained as follows:<sup>1</sup>

$$\frac{\text{Adjusted basis}}{\text{Number of units remaining as of the beginning of the taxable year}} \times \text{Number of units sold during the year} = \text{Depletion for the year}$$

"Percentage depletion", sometimes called "statutory depletion" is computed by the application of a specified percentage to the gross income from the property.<sup>2</sup> The amount so computed is limited to 50 per cent of the taxable income from the property before allowance for depletion, but the deduction in any event shall not be less than the amount computed on the cost basis. Under the percentage depletion method, it is possible for a taxpayer to recover tax free, through depletion allowances, an amount greater than the cost of the property.<sup>3</sup>

---

<sup>1</sup>Organization of Lybrand, Ross Bros. & Montgomery, Montgomery's Federal Taxes (New York: The Ronald Press Company, 1964), pp. 12.5-12.6.

<sup>2</sup>In mid December 1969 the United States House of Representatives and Senate, in revising the existing 27.5 per cent depletion rate, agreed on a 22 per cent rate rather than 23 per cent in a Senate-passed version and 20 per cent in a House-passed version.

<sup>3</sup>Organization of Lybrand, Ross Bros. & Montgomery, op. cit., p. 12.8.



2) Intangible development costs refer to the like of labor, fuel, power, materials, supplies and repairs of drilling equipment in connection with drilling and equipping productive wells. The taxpayer has the option of either capitalizing intangible development costs and recovering them through cost depletion or writing them off as a current expense. If he chooses the latter alternative his allowable deductions under the percentage option are not reduced, unless the intangible development costs currently expensed are large enough to bring into operation the 50 per cent-of-net rule limiting the percentage depletion deduction. Needless to say, the taxpayer ordinarily finds it in his interest to deduct intangible development costs as a current expense, thereby lowering his taxable income without affecting the amount of his depletion allowance.<sup>1</sup>

3) The taxpayer who has elected to capitalize intangible drilling costs has the further option of capitalizing dry hole costs and recovering them through cost depletion or of expensing them as incurred. As with intangible development costs, it is ordinarily in the interest of the taxpayer to expense dry hole costs as incurred, since the percentage depletion deduction is affected, if at all, only through the 50 per cent-of-net limitation. Other costs of exploration effort found to be unsuccessful may likewise be

---

<sup>1</sup>Stephen L. McDonald, op. cit., p. 10.



written off as current expense or ordinary loss.<sup>1</sup>

Tax Accounting Treatment of Expenditures in the  
Finding, Development and Production of Oil and  
Gas

<u>Expenditure</u>	<u>Tax Treatment</u>
1. Dry hole costs	1. Expenses as incurred <sup>a</sup>
2. Lease rentals	2. Expensed as incurred
3. Lease acquisition costs	3. Capitalized upon acquisition
i) Leases later proved unproductive	i) Capitalized cost charged off as loss upon surrender of lease <sup>b</sup>
ii) Leases later proved productive	ii) Capitalized cost recoverable as such only through cost depletion
4. Other exploration expense (geophysics, geology)	4. Capitalized if on an area of interest <sup>c</sup> , otherwise expensed as incurred
i) Areas later proved unproductive	i) Capitalized costs charged off as a loss upon surrender of property <sup>b</sup>
ii) Areas later proved productive	ii) Capitalized cost recoverable as such only through cost depletion
5. Intangible drilling costs of producing wells	5. Option of expensing as incurred or capitalizing and recovering through cost depletion <sup>d</sup>
6. Tangible equipment on producing wells	6. Capitalized and recovered through depreciation
7. General lease equipment on producing properties	7. Capitalized and recovered through depreciation
8. Production costs	8. Expensed as incurred

---

<sup>1</sup>U.S. Congress, Joint Economic Committee, The Federal Revenue System: Facts and Problems, 1961 (Washington, D.C.: Government Printing Office, 1961), p. 91, cited in Ibid., p. 10.





Notes:

<sup>a</sup>Taxpayers electing to capitalize intangible drilling costs have the additional option of either expensing or capitalizing dry hole costs. The option to capitalize intangibles is almost never used.

<sup>b</sup>Or upon final determination of worthlessness of mineral rights without immediate surrender of the property.

<sup>c</sup>An area of interest is one in which further exploratory work is at least conditionally contemplated.

<sup>d</sup>Capitalized intangible costs incurred in the installation of casing and equipment and in the construction on the premises of derricks and other physical structures are recoverable through depreciation.

Source: Stephen L. McDonald, op. cit., p. 17.

### Taxation of Foreign Investment Income

Under the income tax law of the United States domestic corporations (also citizens of the U.S. wherever resident and aliens resident in the U.S.) are taxed on world wide income. So, regardless of its geographical source, the entire income of such taxpayers is subjected to the United States income tax. When income is derived from sources outside the U.S., it will also usually be taxed in the countries in which it originates. Consequently, the problem of international double taxation arises. The most important relief is that provided by the foreign tax credit.

The treatment of foreign income taxes as a credit or a direct offset against the United States income tax





instead of as a deduction from gross income is beneficial to taxpayers in nearly all circumstances. For example: Assume the U.S. tax rate applicable is 50 per cent, the foreign source income before foreign tax is \$100 and the foreign tax paid is \$30. If the foreign tax is used as a deduction, taxable income becomes \$70 and the U.S. tax \$35, giving a total of \$65 in taxes.

When the foreign tax is used as a credit: taxable income is \$100 on which the U.S. tax before credit is \$50. After credit of the foreign tax then only \$20 need be paid to the United States (\$50-\$30). This gives a total of \$50 in taxes as compared to \$65 if the foreign tax were deducted.<sup>1</sup>

The tax credit approach adopted by the United States conceptually would afford equity of tax treatment to all U.S. resident investors and would largely render multinational taxation neutral in its effect on the choice of location of the investment, given the relatively high level of the U.S. corporate income tax. However the neutrality-promoting effects of the foreign tax credit are diluted by various other tax concessions including tax deferral and tax-sparing treaties.<sup>2</sup>

---

<sup>1</sup>E. A. Owens, The Foreign Tax Credit (Cambridge, Mass.: The Law School of Harvard University, 1961), p. 3.

<sup>2</sup>P. B. Richman, Taxation of Foreign Investment Income (Baltimore: The John Hopkins Press, 1963), p. 58.



Tax deferral refers to a concession by which income earned by U.S. subsidiaries and controlled corporations abroad is not taxed by the U.S. as it is earned, but only when it is repatriated to the United States in the form of dividends to shareholders or the parent company. This affords the advantage to the foreign as against the domestic investor, and to the foreign corporate form rather than the branch form of operations as long as the foreign tax rate is below that of the U.S. Other concessions include the reduction of the U.S. tax rate to 38 per cent with respect to the Western Hemisphere Trade Corporations and tax exemption for income earned and retained by U.S. corporations operating in U.S. possessions and Puerto Rico.

Tax-sparing treaties have been negotiated with several less developed countries who give tax exemptions or reductions to attract private investment. Under tax sparing the foreign income tax which is "spared" by the capital importing country is still considered as paid by the United States and therefore allowable as a tax credit against the U.S. tax liability. Tax treaties are in effect with the following countries, among others: Australia, Canada, France, Germany, Japan, New Zealand, Sweden, Union of South Africa and the United Kingdom.<sup>1</sup>

---

<sup>1</sup>Ibid., pp. 58-60.



### Comparison of Canadian - United States Petroleum Taxation

The Canadian provisions allowing the expensing of development costs and the deduction of percentage depletion have counter parts in the United States although they differ somewhat. The percentage depletion allowed to shareholders is distinctively Canadian.

The expensing allowances for exploration and development under U.S. laws are not, in the main, as broadly defined as are those in Canada nor is their carry forward of losses unlimited. American provisions do not distinguish however, among classes of taxpayers in the definition of allowed expenses. In comparing the allowed deductions in Canada with the U.S. a number are obviously more generous in the former particularly in regard to the expensing of exploration expenditures despite the non-deductibility of land acquisition costs in Canada. Geological and geophysical costs can be recovered only through depletion in the U.S. but may be expensed in Canada.

The Canadian percentage depletion is somewhat limited in comparison with U.S. laws which, as discussed, present an option allowing the higher of cost depletion or the percentage allowance. When the percentage allowance becomes more advantageous it may be used even if the cost method were used in earlier years. Although the U.S. percentage rate is  $27 \frac{1}{2}$  per cent compared with  $33 \frac{1}{3}$  per cent in Canada it is based on gross income (with a net





income limitation) where Canada's is based on net income. The deductions from gross income, in arriving at net, include operating, overhead and depreciation costs plus such permitted exploration and development expenditures as apply to that property. The greater liberality of U.S. depletion stems not so much from the gross concept on disaggregated properties (whereas the Canadian allowance is a net concept based on aggregated properties) as from the elimination of "off-property" exploration (expenses connected with unproductive acreage) in the calculation of the net income limitation.<sup>1</sup>

Capital cost allowances in Canada are difficult to compare exactly with the U.S. allowances due to the different methods used in computation in the U.S. (straight line, sum-of-the years digits, etc.) while the Canadian provision calls for the diminishing balance method. However, Bucovetsky's study for the Carter Commission found that "capital cost allowances under Canadian regulations appear to be higher than depreciation rates allowed to the extractive industries in the United States."<sup>2</sup>

### Royalties

Royalty payments in Canada, although they differ among the western provinces to a small degree, are

---

<sup>1</sup>M. W. Bucovetsky, op. cit., p. 18.

<sup>2</sup>Ibid., p. 19.





substantially less than U.S. royalties.

The maximum royalties in Alberta and British Columbia are  $16 \frac{2}{3}$  per cent of production and they vary in Saskatchewan from 5 to 18 per cent. However, as given earlier U.S. royalties have a minimum of  $12 \frac{1}{2}$  per cent and increase with production to 25 per cent when the yield per well per day exceeds 400 barrels.

### Corporate Taxation Rates

A federal tax is imposed on corporations in Canada at the rate of 21 per cent on the first \$35,000 of taxable income and at the rate of 50 per cent on taxable income in excess of \$35,000. The combined federal and provincial taxes range from 21 per cent to 23 per cent on the first \$35,000 of taxable income and from 50 to 52 per cent on the excess depending on the province involved. Where two or more companies are "associated" only one amount of \$35,000 is taxed at the lower rate (21 per cent).

Associated here means if one corporation controls the other or if both are controlled by the same person or group. Control is generally understood to mean holding directly or indirectly over 50 per cent of the voting shares.

In the United States federal taxes are divided into the "normal" tax and a surtax. Since 1963 the normal tax has been imposed at the rate of 22 per cent on taxable income up to \$25,000. The surtax on the excess over \$25,000 has, since 1964, been set at 26 per cent giving a



total tax of 48 per cent on taxable incomes over \$25,000. If consolidated returns are filed, the liability for normal tax and surtax is computed on a consolidated basis.

### Withholding Taxes

The present Canadian withholding tax applicable to non-residents on interest, rental and royalty income is generally 15 per cent. However, the Carter Commission recommended that the withholding tax rate on such income be increased to 30 per cent. The 30 per cent withholding rate is the standard rate in the United States and approximates the standard rate in some other countries so there would be little risk of retaliation or of weakening foreign confidence if the same rate were to prevail in Canada. In the case of dividend payments, a higher level than the present 15 per cent in most cases may discourage some foreign investment unless the investor could obtain full tax credit for the amount of tax withheld and this is unlikely. The Commission therefore did not recommend any changes in the withholding tax on dividends.<sup>1</sup>

It has been argued that the present Canadian treatment of the extractive industries is not generous enough since the combined impact of the United States and Canadian tax laws favors the operations of United States residents

---

<sup>1</sup>Report of the Royal Commission on Taxation, Vol. 4, op. cit., p. 541.



(individual and corporate) over those of Canadian residents.<sup>1</sup> This follows from the facts that U.S. depletion is based on gross income while Canada's percentage depletion is computed on net income and U.S. residents may immediately expense property acquisition costs while this same benefit is not available to Canadians. These facts combined with the ability of United States investors in the early stages of a development program to offset losses on Canadian operations against income otherwise taxable in the U.S. thus allow these U.S. investors to use tax money, so to speak, to explore in Canada.

Such advantages as exist for non-residents apply to Canadian branches of United States companies before their income in Canada exceeds the cost of their current exploration and development programs. Prior to reaching this point, these branches may carry forward their pre-production expenses for write-off against future taxable income in Canada. Further, they can immediately expense intangible drilling costs and the cost of unproductive acreage against income otherwise subject to U.S. tax, without affecting the size of its depletion allowance in the United States. Once the U.S. company attains a tax-paying status in Canada it loses this advantage in exploration it had over Canadian companies.

---

<sup>1</sup>See Irving Brecher and S. S. Reisman, Canada-United States Economic Relations. Study prepared for the Royal Commission on Canada's Economic Prospects (Ottawa: Queen's Printer, 1957), p. 127 and Report of the Royal Commission on Taxation, Vol. 4, op. cit., p. 322.





Major international integrated oil companies, whether they be non-resident or Canadian owned also have an advantage if they are incorporated in Canada. If their write-offs of exploration and development costs exceed their production income, the excess may be written off against refining and marketing income.





## CHAPTER III

### VENEZUELA

#### Background

The basic statute relating to petroleum is the Hydrocarbons Law enacted in 1943 and as since amended. By its terms are governed all aspects of exploration, production, manufacturing, refining, transportation, storage and handling (except marketing) of hydrocarbons. The law also declares these operations to be in the nature of a public utility and authorizes the national executive to conduct the various operations or to grant concessions to conduct them to any person or company.

There are four types of concessions in Venezuela:

Exploration

Production

Refining

Transportation

The former two, while they do not give title to hydrocarbons in the ground, grant the rights to produce them and the rights and obligations of the latter two are included in the grant of exploration or production concessions. Beyond the normal leasing, royalty and taxation arrangements provided in the law, the National Executive is authorized to require special advantages to the nation by an applicant and these have been known to



include:<sup>1</sup>

- 1) An additional 8 per cent production tax if the crude is refined outside the country, in the Caribbean area, other than for domestic consumption.
- 2) An obligation to refine in Venezuela the equivalent of 15 per cent of crude produced from the concession.
- 3) Payment of a higher rate of production tax then required by law.

Some of these and other advantages have been required of all bidders while others have been volunteered by individual bidders.

Since early 1958, the policy of the government has been that no new concessions would be issued to other than the government oil company, (Corporacion Venezolana de Petroleo, "C.V.P."). However service contracts may be negotiated with the C.V.P. by private oil companies.

### Leases

Exploration concessions are granted in lots not exceeding 10,000 hectares (24,710 acres). The term is three years subject to the surface rights of the owners or occupants of the area. After the required surveying of the lot, it may be subdivided to rectangular production parcels not exceeding 500 hectares (1,235 acres) each. Production titles may be issued for any of these on request

---

<sup>1</sup>Petroleum Legislation II, Venezuela, op. cit., p. 2.



and the remainder returned to the nation to be known as "national reserves".

If an application for a production concession, accompanied by a description of the area and a sketch, is approved, the concessionaire acquires the exclusive right to drill for hydrocarbons within the area's boundaries and to produce them. The term of such concessions is forty years. Further, the concessionaire may construct buildings, roads and other facilities as required. A production concession may be renewed between the 20th and 38th year for a further term of forty years and the concessionaire must pay a special yearly tax of not less than 0.20 bolivars per hectare, (U.S. \$0.018 per acre).<sup>1</sup> Alternatively, a production concession may be renewed by application in the second last year of a term and the Minister of Mines and Hydrocarbons publishes the conditions under which the new grant will be made. If agreeable to these conditions, the incumbent concessionaire receives preference. At the expiration of a concession, it reverts to the nation including all permanent construction pertaining to it.<sup>2</sup>

---

<sup>1</sup>There are three rates of exchange in Venezuela, all pegged to the U.S. dollar. The oil and iron-ore companies' rate is Bs. 4.40 per U.S. dollar; the coffee and cocoa rate is Bs. 4.485 per U.S. dollar; and the free rate established by the Central Bank is about Bs. 4.50 per U.S. dollar.

<sup>2</sup>Petroleum Legislation II, Venezuela, op. cit.,  
pp. 5-6.





Refining and transportation concessions may be issued independently. They are for a term of 50 years and may be renewed for similar periods for as long as operations continue.

### Royalties and Taxes

The Hydrocarbons Law imposes a:

- i) Surface tax
- ii) Production tax
- iii) Consumption tax
- iv) Transportation tax

i) The surface tax on exploration concessions is at the rate of Bs. 2.00 per year per hectare (U.S. \$0.184 per acre). On acquisition of a production title an initial production tax of Bs. 8.00 per hectare (U.S. \$0.736 per acre) is imposed. Additional bonuses have been required as special advantages to the nation as pointed out earlier. A surface tax is also imposed on the second type of concession, namely production concessions. This amounts to Bs. 5.00 per hectare (U.S. \$0.46 per acre) per year during the first five years and increasing by Bs. 5.00 per hectare every five years to a maximum of Bs. 30.00 per hectare (U.S. \$2.76 per acre). This tax is assessed quarterly but if a production tax is also being paid then the surface tax is reduced by the amount of the production tax to a minimum of Bs. 1.25 per hectare (U.S. \$0.115 per acre) per quarter.<sup>1</sup>

---

<sup>1</sup>Ibid., p. 7.



- ii) The production tax is at the rate of  $16 \frac{2}{3}$  per cent of crude oil produced and natural gas sold or used as fuel. The national executive may demand payment in cash or in kind but is normally collected in the former. The tax on crude is based on the agreed commercial value when it is weighed at gauging stations in the field. Valuation of natural gas for tax purposes is based on the sales price if sold or upon the value of the calorific equivalent of crude oil if consumed in operations. The national executive is authorized to reduce the production tax to stimulate production or when the natural gas is being used for purposes considered to be in the public interest the tax may be reduced or cancelled.
- iii) The consumption tax is levied on manufacturers and refiners if locally-refined products are used or sold for consumption in Venezuela. The amount of the tax is 50 per cent of the import duties to which the product would have been subjected had it been imported.
- iv) There is a tax of  $2 \frac{1}{2}$  per cent of receipts from third parties for pipeline transportation.<sup>1</sup>

#### Income Taxes

The Income Tax Law of 1967 imposes a:

- i) Basic tax of  $2 \frac{1}{2}$  per cent

---

<sup>1</sup>Ibid., pp. 8-9.



- ii) Graduates surtax
- iii) Additional (50-50) tax

In general all income having a source in Venezuela is taxed including capital gains. In addition to the above taxes, a payroll tax of 1 per cent on employers was established in 1959 to help defray the costs of the National Educational Cooperation Institute.

### Depreciation and Amortization

The law requires that the following costs be capitalized:<sup>1</sup>

- 1) Concession costs including purchase price, expenses, initial exploitation costs, exploration and initial exploitation taxes. Such costs may be amortized on the basis of their individual production and proven reserves or on the basis of the production and proven reserves of the group of concessions comprising the proven area. Nonproducing concessions which are not within a proven area may not be depleted.
- 2) Exploration expenses including geological, seismic and aerophotographic work; roads, construction and expenses of topographical surveys. Such expenses are recoverable on a unit-of-production method based on the concessionaire's total proven reserves in Venezuela and his total production in Venezuela.
- 3) Dry hold expenses may be either capitalized or expensed.

### Tax Rates

Income from oil and gas is taxed at rates as given

---

<sup>1</sup>Arthur Anderson & Co., Tax and Trade Guide: Venezuela, Tax and Trade Guide Series, No. 27 (Toronto: Arthur Anderson & Co., 1968), p. 67.





in Tariff "B" which incorporates a rebate factor reducing the tax payable by companies experiencing a low rate of net profit in relation to their total turnover. The following table shows a simplified method of calculating the tax payable under this plan.<sup>1</sup>

Taxable Income Up To	Average Percentage Applicable	Fixed Amount Deductible from Resultant
Bolivars	%	Bolivars
100,000	20.0	-
1,400,000	25.0	5,000
3,800,000	28.5	54,000
6,400,000	33.5	244,000
10,000,000	39.0	596,000
20,000,000	44.5	1,146,000
28,000,000	47.5	1,746,000
Any higher amount	52.0	3,006,000

The rebate is calculated by dividing the net income remaining after the deduction of the Tariff "B" tax by total income (gross income less that part of the cost of sales represented by crude hydrocarbons or unprocessed minerals purchased in Venezuela).

The rebate is determined by the resulting quotient as follows:

<u>Quotient</u>	<u>Rebate of Tax</u>
.05 or less	7.70%
.10	4.65
.15	2.30
.20	0.70
.25 or more	0.00

---

<sup>1</sup>Ibid., p. 70.





### Investment Incentives

Reductions of tax are also permitted in respect of new investment and increased export sales with the provision that these reductions cannot exceed 2 per cent of net taxable income in any one year. However, any excess investment allowances may be carried forward for use in any of the next three years. Subject to this limitation, the taxpayer is entitled to:<sup>1</sup>

- 1) Rebate of 8 per cent of amount invested, in Venezuela, in new fixed assets used in production of income reduced by the year's depreciation and 2 per cent of average balance of fixed assets in the previous year.
- 2) Rebate of 4 per cent of the amount invested in:
  - a) Exploration, drilling and installations used for production, transport or storage,
  - b) Secondary recovery of petroleum products,
  - c) Conserving, storing and developing the usage of gas, and
  - d) Upgrading the value of hydrocarbons and minerals including research costs.
- 3) Rebate of 0.25 per cent of taxable income for each 1 per cent increase in export sales compared with the average of such sales during the previous two years.

Losses may be carried forward for three years for setoff against subsequent profits.

---

<sup>1</sup>Ibid., p. 72.



### Additional (50-50) Tax

The purpose of this additional tax is to insure that the National Treasury receives at least 50 per cent of the gains derived from the exploitation of mineral deposits.

Taxpayers "controlled by the same interests" may be required to file a consolidated return for additional tax purposes. However, recent increases (1958 and 1967) in surtax rates plus the 16 2/3 per cent production tax and other levies, raised the nation's share of the income of most oil companies to considerably more than 50 per cent even without the additional tax.<sup>1</sup>

### Economic Conditions and Implications of Concessions

Commercial production in Venezuela first took place in 1917 with a total output of 121,116 barrels and total exports of 57,000 barrels -- a minor contribution to the national economy. By the late thirties 93 per cent of the country's total exports came from oil and the industry contributed one-third of Venezuela's fiscal income. Venezuela was the second largest producer of petroleum in the world and the largest exporting country.

By 1964 the total value of Venezuelan exports was Bs. 10,849 million (U.S. \$2,465.7 million), of which Bs.

---

<sup>1</sup>Petroleum Legislation II, Venezuela, op. cit., p. 10.



10,134 million (U.S. \$2,303.2 million), or 93.4 per cent, came from oil and oil products. A petroleum income of Bs. 4,780 million in 1964 constituted 67 per cent of the Bs. 7,125 million national budget.

The country of Venezuela is financially solvent and as a consequence of the high dependence on oil it has a large volume of foreign trade. At the end of 1965 Venezuela had one of the largest per capita gold reserves in the world. But, on the other hand, it is also a lopsided economy. With much of the labor force engaged in the agricultural sector and a low output in manufacturing, most luxury items are imported. The high national income, largely due to the contribution of petroleum, is in striking contrast to the low performance of individuals and institutions.<sup>1</sup>

During the 1950's rises in import and export prices tended to offset each other so Venezuela's terms of trade established no significant trend. Weakening world markets for petroleum in 1958, precipitated in part by the reopening of the Suez Canal and recessions in a number of the industrial nations, produced a sharp downturn in the country's terms of trade, a trend which was not reversed until 1963. Export volume and capacity to import almost

---

<sup>1</sup>Anibal R. Martinez, Our Gift, Our Oil (Vienna: N.V. Drukkerij, D. Reidel-Dordrecht, 1966), Chapter 1.





doubled between 1950 and 1957, tapering off thereafter with import capacity actually falling as a result of the deteriorating terms of trade.<sup>1</sup>

As mentioned earlier, the economy is heavily dependent on foreign trade. Throughout the 1950's exports accounted for 30-35 per cent of GNP with petroleum accounting for better than nine-tenths of total exports and iron ore contributing most of the rest. Imports in over-all consumption had fallen to about one-third by 1958 from one-half eight years earlier. Imports of machinery and equipment never fell below 86 per cent of total gross investment during the decade and averaged about 95 per cent over the period.

The structural imbalance was also reflected in the pattern of employment. Although contributing 21-23 per cent of GNP in the 1950's, the petroleum sector gave jobs to less than 2 per cent of the employed labor force. At the other extreme, agriculture, providing 6.2 per cent of GNP, accounted for 36.1 per cent of the employed labor force.

The national government, by virtue of its large tax take, is the major channel through which oil revenues are fed into the Venezuelan economy. Government expenditures

---

<sup>1</sup>Fred D. Levy, Economic Planning in Venezuela, Praeger Special Studies in International Economics and Development (New York: Frederick A. Praeger, 1968), pp. 10-13.



amounted to about one quarter of GDP in 1959 -- increasing two and a half times over the decade. Further, the public sector accounted for more than 45 per cent, on average, of gross fixed investment in the fifties with the current account surplus financing 40 per cent of gross fixed investment during the period.

However, the nation's economy remained crucially tied to one product over whose fate in the world market place the nation had little control. It was saddled with a backward agricultural sector which was only beginning to get on its feet behind the protection of high tariff walls in the early sixties. Lack of human skills represented a serious bottleneck in all sectors and rapid population growth was adding each year to the already critical unemployment situation (approximately 12 per cent) and housing shortage.<sup>1</sup>

### Comparison of Canadian-Venezuelan Petroleum

#### Taxation

Taking the province of Alberta as representative from a Canadian standpoint, the annual rental, mineral acreage tax and the producing area tax will be compared to the Venezuelan surface tax. The consumption tax levied in Venezuela on manufacturers and refiners, if locally refined

---

<sup>1</sup>Fred D. Levy, op. cit., Chapter 1.



products are used or sold for consumption in that country, is omitted from the comparison but it should be kept in mind that this tax amounts to 50 per cent of the import duties to which the product would have been subjected had it been imported. Also neglected in the 2 1/2 per cent of receipts tax on third parties for pipeline transportation. The principal provisions regarding income tax are compared as are Canadian (Alberta) royalties and the equivalent "production taxes" of Venezuela.<sup>1</sup>

CANADA		VENEZUELA	
<u>Petroleum and Natural Gas Lease:</u>		<u>Exploration Concession:</u>	
<u>Rental:</u>	\$1.00 per acre	<u>Surface Tax:</u>	Bs. 2.00 per hectare (Can. \$.199 per acre)
<u>Mineral Acre-age tax:</u>	\$ .05 per acre	<u>After Production Title:</u>	
<u>Producing area tax:</u>	Eight mills on the "assessed" value of the petroleum within	<u>Initial Production Tax:</u>	
		Bs. 8.00 per hectare (Can. \$.795 per acre)	
<u>Petroleum or Natural Gas Lease:</u>		<u>Production Concession:</u>	
<u>Rental:</u>	\$.333 per acre	<u>Surface Tax:</u>	Bs. 5.00 per hectare (Can. \$.497 per acre) for the first five years increasing by Bs. 5.00 per hectare every five years to a maximum of Bs. 30.00 per hectare (Can. \$2.98 per acre) and reduced by the amount of any production tax being paid to a minimum of Bs. 6.00 per hectare (Can. \$.597 per acre).
<u>Mineral Acre-age tax:</u>	as above		
<u>Producing area tax:</u>	as above		

---

<sup>1</sup>Throughout this discussion an exchange rate of Bs. 4.40 = U.S. \$1.00 = Can. \$1.075 is used yielding Bs. 4.07 = Can. \$1.00 and 1 hectare = 2.4710 acres.





Royalties

## CANADA (Alberta)

## VENEZUELA

## a) Crude

Monthly ProductionRoyalty

0 - 750

8 % of barrels  
produced

750 - 2700

60 bls. plus  
20 % of bls.  
over 75016 2/3 per cent of  
crude produced or  
natural gas sold

2700 &amp; over

16 2/3 % of  
bls. producedCrude: May be taken in  
kind or based on agreed  
commercial value when  
weighed at gauging  
stations in the fieldb) On other fluid hydrocarbons  
and sulphur from natural gas:  
16 2/3 per centc) Natural gas: 16 2/3 per  
cent of the selling price  
but not less than 3/4 of a  
cent per 1,000 cubic feetNatural Gas: Based on  
sales price if sold or  
upon the value of the  
calorific equivalent of  
crude.Income Tax

In determining net income for computing taxes the allowable deductions are much more liberal in Canada. Items which may be expensed and fully deducted in Canada include: exploration and development costs with all geological and geophysical expenditures, intangible drilling and development costs and the costs of casing. However, in Venezuela, all the foregoing must be capitalized only with the exception of dry hole costs which may be either capitalized or expensed. Other deductions are similar in the two countries including: salaries and other maintenance and administration expenses, rentals, bad debts and capital cost allowances of depreciable assets as given in detail





earlier.

The Canadian depletion allowance of 33 1/3 per cent on net income has no similar counterpart in Venezuela. Whereas Canadian income from all sources, excluding capital gains, is included in taxable income, only since 1967 has income from dividends been taxed in Venezuela. Capital gains are considered taxable income in Venezuela as well.

We have seen that Canadian provisions allow for losses in petroleum activities to be carried forward indefinitely until all exploration and development costs have been recovered. In Venezuela it is more restrictive in that losses may be carried forward for only three years to be set off against subsequent profits.

The provisions in regard to withholding taxes on dividend income destined for foreigners is similar in the two nations. The Venezuelan rate is set at 15 per cent and the Canadian rate is generally the same. However, in Canada, when the recipient is a foreign corporation with a degree of Canadian ownership the rate is reduced to 10 per cent.

#### Tax Rates

The Canadian tax rates on corporate income may be briefly given as ranging from 21 to 23 per cent on the first \$35,000 taxable income and from 50 to 52 per cent on the excess, the exact rates depending on the province involved.



To compare the Venezuelan tax rates on petroleum corporations the simplified method used on page 52 of this chapter will be used and the same figures converted to their Canadian equivalents at Bs. 4.07 = Can. \$1, the approximate exchange rate during the sixties.

Taxable Income Up To	Average Percentage Applicable	Fixed Amount Deducted from Resultant
\$ 24,570	20.0	-
343,980	25.0	\$ 1,228
933,660	28.5	13,267
1,572,481	33.5	59,950
2,457,002	39.0	146,437
4,914,004	44.5	281,572
6,879,606	47.5	428,992
Any higher amount	52.0	738,575

An additional number of rebates are permitted as investment incentives beyond the fixed amount deductible and these have been discussed earlier in some detail. However, the additional (50-50) tax imposed on petroleum exploiters makes these largely irrelevant for those with smaller incomes since the purpose of this tax is to insure that the National Treasury receives at least 50 per cent of the gains derived by such companies. So, in the final analysis the tax rates imposed by the two countries are quite similar, but Canadian provisions in regard to deductions make the effective tax payable in Canada lower than that payable in Venezuela by the amount of these additional deductions times the tax rate.



The present Canadian depletion allowance taken together with the other rules and regulations which include the write-off of exploration, drilling, development and costs of rights to explore or drill, results in tax being applied to only two-thirds of net income. For corporate purposes, this means an effective federal tax rate of approximately 33 1/3 per cent as opposed to the normal rate of 50 per cent.<sup>1</sup> Now, considering the 16 2/3 per cent royalty going to the provincial government and fully deductible for federal tax purposes we have a share of net profits in the area of 43 per cent going to governments in Canada. In Venezuela, however, the new income tax schedule of 1958 raised the government's share of net income to at least 65 per cent and by late 1969 this share had risen to 72 per cent representing 96 cents per barrel exported.<sup>2</sup>

---

<sup>1</sup>A. Gordon Burton, Comments re Taxation of the Oil and Gas Industry, Studies of the Royal Commission on Taxation, No. 12 (Ottawa: Queen's Printer, 1964), p. 16.

<sup>2</sup>Charles Issawi and Mohammed Yeganeh, The Economics of Middle Eastern Oil (London: Faber and Faber, 1962), p. 125 and Frank J. Gardner, "Venezuelan Contracts Still up in Air," Oil and Gas Journal (November 3, 1969), p. 28.





## CHAPTER IV

### MIDDLE EAST

#### Background

Petroleum legislation in the Middle East is carried out under the terms of concession contracts and laws of individual countries. The most important of these are: Iran, Iraq, Kuwait, Qatar and Saudi Arabia. In 1961 these countries together with Venezuela, Indonesia and Libya formed the Organization of Petroleum Exporting Countries (OPEC). Three of the main goals of this organization were to achieve:

- 1) restoration of posted prices for petroleum to their pre-August 1961 level,
- 2) expensing of royalties instead of treating them as a deductible tax,
- 3) limitation or elimination of discounts off posted prices for crude petroleum.

Negotiations with oil companies on a country-by-country basis resulted in some success by the mid sixties with the achievement of the expensing of royalties and limitation of discounts off the posted price.<sup>1</sup> These arrangements were formalized in the legislation in the individual countries whose overall arrangements will now be examined.

---

<sup>1</sup>Petroleum Taxation International, Petroleum Taxation - Middle East (New York: Petroleum Taxation International, 1968), p. 1.



## Iran

Oil and gas operations in Iran are controlled by the Petroleum Act of 1957 and its petroleum affairs are administered by the National Iranian Oil Co. (NIOC), a government agency created by the Oil Nationalization Act of 1951.<sup>1</sup> The Petroleum Act requires that all contracts with foreign entities be approved by parliament and concluded through the national oil agency, NIOC.

The first of these contracts was the Consortium Agreement of 1954 whereby a consortium of companies received the exclusive right to operate the Abadan refinery as well as to explore, produce and load oil on tankers from a large area in and offshore Iran. Lands outside the area would be permitted to be acquired if "reasonably" needed. The consortium is made up of seventeen different companies with various shares; The British Petroleum Co. Ltd. holding 40 per cent, five major American companies each holding 7 per cent, nine independent American companies holding a total of 5 per cent, a Dutch company with 14 per cent and a French company holding 6 per cent.<sup>2</sup>

The Petroleum Act authorizes the government's NIOC to conclude contracts with private companies for oil

---

<sup>1</sup>For a concise account of the Act and the events surrounding its adoption see Charles Issawi and Mohammed Yeganeh, The Economics of Middle Eastern Oil (London: Faber and Faber, 1962), pp. 26-28.

<sup>2</sup>Petroleum Legislation I, Iran, op. cit., Appendix I, p. 5.



development outside the consortium area, following approval by parliament. Such contracts are granted only if the applicant's home country provides similar privileges to Iranians.

#### Exploration - Exploitation

Provisions for both exploration and exploitation are combined in one agreement<sup>1</sup> wherein the maximum contract area, when NIOC holds 50 per cent interest or more, is 25,000 sq. km. Otherwise the maximum area is 20,000 sq. km. The maximum duration is 25 years with three extensions of 5 years permitted.

The first well must be drilled within four years. If production is not obtained in twelve years the contract is dissolved. When NIOC owns less than 50 per cent, one well must be drilled within five years and one each year thereafter.

An area return clause requires that one-half of the total contract area be returned to NIOC within ten years where NIOC owns 50 per cent or more of the operating company. Otherwise one-half the area must be returned within five years following commercial production with a maximum 2,000 sq. km. retained. Only producing areas may be retained by any company after twelve years.

There is an initial bonus and surface rental payable

---

<sup>1</sup>Ibid., p. 2.





depending upon the area covered. A private company may agree to meet all exploration expenses in lieu of bonus and the annual surface payments, including its own share and the share of NIOC. Operators are exempt from all taxes except payments to NIOC and income tax.

In 1964 five groups were awarded offshore concessions including:<sup>1</sup>

- 1) Italian A.G.I.P., Phillips Petroleum and the Indian Government's Oil and Gas Commission (group later joined with NIOC to form the Iranian Marine International Oil Company).
- 2) Atlantic Richfield, Sun Oil, Union of California and Murphy Oil Company (group later formed The Lavan Petroleum Company).
- 3) Tidewater, Superior, Skelly, Sunray DX, Kerr McGee, Cities Service and Atlantic Richfield (later formed The Iranian Offshore Petroleum Company).
- 4) Royal Dutch Shell (later formed the Daskestan Offshore Petroleum Company).
- 5) Three state owned French interests (later combined with NIOC to form The Farsi Petroleum Company).

The terms of all five agreements were similar (but not identical). However to specify terms given under the Petroleum Act at this time the principle terms of the second of these agreements (Atlantic Richfield, Sun Oil, etc.) are given here:<sup>2</sup>

---

<sup>1</sup>Stephen H. Longrigg, Oil in the Middle East: Its Discovery and Development (3rd ed.: London: Oxford University Press, 1968), pp. 382-383.

<sup>2</sup>Petroleum Legislation I, Iran, op.cit., Appendix I, pp. 7-8.





Agreement: Atlantic Group Offshore Concession

Area: Block 1 (Lurestian Area), Block 2 (Central Fars Area), Block 3 (Southern Fars Area). Approximately 8,000 sq. km. in South Persian Gulf.

Interests: NIOC - 50 %  
Atlantic Group - 50 %

Term: Initial exploration term 12 years with right to terminate after 4 years. Where petroleum is discovered in commercial quantities term is 25 years from date of commercial production (export of 100,000 cubic meters of petroleum).

Bonus: \$25,000,000 signature bonus, plus up to \$6,000,000 production bonus on block 3.

Minimum Work  
Obligation:

\$15,000,000 (\$12,000,000 in first 4 years; \$375,000 per year thereafter through twelfth year) Atlantic group pays all exploration expenditures.

Drilling

Obligation: Exploration to begin within 6 months after effective date, drilling of first well to begin within eighteen months.

Commercial  
Production

Rental: Rising from \$400 per sq. km. per year for first five years. After commercial production, up to \$1,050 per sq. km. the twenty-fifth year.

Relinquish-  
ment:

25% by the end of the fifth year, additional 25% by the end of the tenth year. All but commercially exploitable fields by end of the twelfth year.

Development  
Expenses:

Each party pays its share of expenses, however, on request, Atlantic shall lend NIOC its 50 % share until commencement of commercial production; interest at Federal Reserve discount rate plus 1.5 %; repayment in three years.



## Taxation

Companies who derive their net income from the sale of petroleum or other hydrocarbons produced in or exported from Iran are required to pay taxes in accordance with that country's Income Tax Act of 1956, as amended.

Net income of such a company is the difference between its gross income earned in Iran and the expenses related to that income including:<sup>1</sup>

- a) The cost of goods sold or services rendered in connection with the carrying on of its operations in Iran.
- b) Operating expenses including administrative, overhead and establishment, contributions and rents.
- c) A "reasonable" amount for depreciation, obsolescence, exhaustion and depletion for the amortization of capital expenditures.
- d) Losses including bad debts, claims for damages and damage to stock in trade or property.

Exploration, drilling and development costs are normally expensed under (b) but the provisions of the off-shore agreements of 1964 allowed only for the amortization of these costs over 15 years on a straight line basis.

Capital gains are included in taxable income and there is a withholding tax on dividends paid to non-residents of 10 per cent. All residents are subject to

---

<sup>1</sup>Petroleum Taxation International, Petroleum Taxation - Middle East, Iran, op. cit., p. 8.



income taxes except certain foreign representatives and domestic farmers. There is no provision regarding the carrying forward of losses.

As is the case in most important petroleum producing countries of the Middle East, there exists a profit sharing agreement in Iran, signed in 1954, whereby the government receives 50 per cent of the net profits of companies calculated before the deduction of foreign taxes. This 50 per cent share of net profits is, since 1965, over and above the 12.5 per cent royalty based on posted prices.

### Iraq

There is no petroleum law as such in Iraq. Petroleum rights are granted under concession and negotiated directly with the government.

There are three Iraq Petroleum Company (IPC) Group concessions in Iraq at present. The IPC concession was granted in 1925; the Mosul Petroleum Company (MPC) took over the 1932 concession of the British Oil Development Company, which covers about 45,000 square miles, in 1941; the Basah Petroleum Company (BPC) took the southern areas of Iraq in 1938. Both the MPC and BPC are affiliates of IPC.<sup>1</sup>

---

<sup>1</sup>For a full discussion of events in relation to these early concessions see Stephen H. Longrigg, op. cit., pp. 66-83.





The legal provisions of all three of these concessions are similar. Their terms are for 75 years and a concession may be abandoned at any time. In the MPC and BPC concession, if the abandonment occurs within 30 years, buildings of a permanent nature revert to the government and the government has the option of purchasing all other property at replacement value less depreciation. The IPC concession treats buildings in the same way as other property with no provision for reversion of property if abandonment takes place after 30 years. Should this happen under the MPC or BPC concessions, the entire installations and other plants revert to the government without compensation. Each concession to explore, develop, refine, transport and export petroleum is exclusive in its own area.<sup>1</sup>

The time limit to begin geological surveys was eight months in all cases and drilling was to begin in three years for the IPC and BPC but in 18 months for the MPC. All were committed to pipeline construction. As soon as commercial production was obtained the MPC and BPC were each to construct lines of 1,000,000 tons per year capacity. The IPC line was to have a capacity of 3,000,000 tons per year. In addition BPC and MPC were to begin exports within seven and one-half years.<sup>2</sup>

---

<sup>1</sup>Petroleum Legislation I, Iraq, op. cit., p. 1.

<sup>2</sup>Ibid., p. 2.



## Taxation

In 1952 concession payments were revised to provide the 50-50 payments arrangement, discussed earlier under Venezuela and Iran, for IPC and its two affiliates. A lump settlement of 7,500,000 pounds sterling was made by all three companies, covering past government claims. Now the government receives 50 per cent of the profits from operations.

For tax purposes profits are defined as the difference between the cost of the oil and its "border value". Cost refers to the costs fairly attributable to the companies' operations in Iraq including operating expenses and overheads, depreciation of physical assets at 10 per cent yearly and amortization of capital expenditures in Iraq at 5 per cent yearly. The "border value" is the value of Iraq crude at the points of export and is related to the posted price; namely, the posted price less 1 per cent to take account of expenses incurred in disposing of oil.

The amount of income to the government is hitched to a minimum production level of 22 million tons for IPC and MPC and eight million tons for BPC. The government's share is not to be less than 25 million pounds sterling (from 1955) while the companies are operating. Nor is the governments income to be less than the value at posted prices of 25 per cent of IPC and MPC's net production, and 33 1/3 per cent of BPC's net production. Other provisions



of the concessions include a payment in return for the exemption from all other taxes, amounting to 20,000 pounds each year from all three companies.<sup>1</sup> Further, the government is entitled to receive f.o.b. seaboard terminal, over and above its 50-50 share, up to 12.5 percent of the net production in royalties. The government is free to sell this amount at whatever price it can obtain.<sup>2</sup> All residents of Iraq are liable for tax on all income including capital gains. There is a minimum withholding tax on dividends paid to non-residents of 10 per cent up to 1000 dinars (£ Sterling 1000), increasing for larger amounts. Losses experienced by Iraqi Businesses may be carried forward for offset against future profits for a period of five years.

#### ERAP Concession

In November 1967 a concession contract was awarded the French government's ERAP whereby ERAP would undertake oil exploration (six year term) and exploitation (twenty year term) in areas of central and southern Iraq totalling 10,800 sq. kms.

Fifty per cent of discovered reserves are set aside as a "national reserve" for INOC and the remainder handed over for development and production by ERAP on INOC's behalf.

---

<sup>1</sup>Ibid., pp. 3-5.

<sup>2</sup>Abbas Alnasrawi, Financing Economic Development in Iraq. Praeger Special Studies in International Economics and Development (New York: Frederick A. Praeger, 1967), p. 6.





Of the latter 50 per cent, ERAP has the right to purchase 30 per cent of production at an agreed price reflecting:

- a) production costs,
- b) 50 per cent tax calculated on posted prices,
- c) 12.5 per cent expensed royalty calculated on posted prices.

Of the remaining 70 per cent of production belonging to INOC, ERAP is obligated to market 100,000 b/d (5 million tons a year) at a commission of 0.5 cents per barrel and a further 100,000 b/d at 1.5 cents per barrel.

After the end of five years from the start of production management of the entire venture is to be handed over to INOC. In consideration of the agreement ERAP paid INOC an irrecoverable bonus of \$15 million.<sup>1</sup>

The Iraq National Oil Co. (INOC) by a 1967 law has the authority to formulate policy and to lay down an oil development program. It authorized operations include crude production, refining, exporting and marketing of oil and establishment of an independent national oil industry. Fifty per cent of its annual profits are paid to the government.

#### Kuwait

Five oil companies, one of which is a national firm, operate in Kuwait today. The largest and oldest producer,

---

<sup>1</sup>Petroleum Legislation I, Iraq, op. cit., p. 5.





responsible for 92 per cent of the total output of crude, is the Kuwait Oil Company Limited (KOC). The parent companies, British Petroleum Company Limited and Gulf Oil Corporation, share equally in KOC's concession for Kuwait proper and the extension to the six-mile limit of territorial waters.<sup>1</sup>

The terms of the concession signed in 1934 included an area of 6,000 square miles, a period of 75 years, the initial payment Rs. 470,000,<sup>2</sup> the annual dead rent Rs. 95,000 and the royalty Rs. 3 per ton with an annual minimum of Rs. 250,000, plus 4 annas per ton (13 cents a barrel) in lieu of taxes. In 1951 a new agreement between KOC and the government of Kuwait made provision for an income tax payment computed in such a way that together with other payments (royalties, rent), it would provide an income equal to 50 per cent of KOC's realized profits from oil exports. Four years later a supplemental agreement was concluded whereby the royalty payment was to be 12.5 per cent of the posted price rather than the equivalent of U.S. 13 cents per barrel (the basis known as royalty tonnage) as agreed in 1934.<sup>3</sup> This royalty is now an expense

---

<sup>1</sup>Ragaei El Mallakh, Economic Development and Regional Cooperation: Kuwait (Chicago: The University of Chicago Press, 1968), p. 39.

<sup>2</sup>At this time Rs. (Indian Rupee) 13.3 = £1 Sterling. The Kuwaiti Dinar came into circulation in 1961.

<sup>3</sup>Ragaei El Mallakh, op. cit., p. 41 and Stephen H. Longrigg, op. cit., p. 111.



item in computing income under the OPEC agreements rather than a tax credit.

The first well of producing capacity was found in 1938 and drilling continued until 1942 when it was interrupted by the War. The first export of crude out of Kuwait took place in 1946 and since then the rate of KOC output has been phenomenal, rising from 800,000 tons in 1946 to over 115 million tons in 1967.

In June 1948, the American Independent Oil Company, the highest bidder, obtained exclusive rights covering Kuwait's undivided half interest, in the Neutral Zone between Kuwait and Saudi Arabia, for 60 years. The terms of payment were the highest seen to that time in the Middle East: a royalty of \$2.50 a ton, a bonus of \$7.5 million, a rental of \$625,000 a year until the discovery of oil and a 15 per cent share of net profits. A supplemental agreement in 1961 gave the state a 57 per cent share of the company's realized profits or 50 per cent of profits based on posted prices whichever is higher.<sup>1</sup> The duration of the agreement is 60 years.

A concession covering the area off the shore of the Neutral Zone was granted to the Arabian Oil Company<sup>2</sup>

---

<sup>1</sup>Charles Issawi and Mohammed Yeganeh, op. cit., pp. 37-38.

<sup>2</sup>The Arabian Oil Company is a subsidiary of the Japan Trading Company, a grouping of some 60 Japanese firms.



(Araboil or AOC) in 1957 by Saudi Arabia and in 1958 by Kuwait. The duration of the Kuwaiti contract is 44 1/2 years. The state of Kuwait receives 57 per cent of the profits, an annual rent of \$1.5 million, transfer of 10 per cent of the shares of the company if oil is found in commercial quantities and the progressive surrender of parts of the concession area. Further, the state has the option of taking up to 20 per cent of the oil in kind.<sup>1</sup>

Finally, in 1961 the fourth concessionaire, Kuwait Shell Petroleum Development Company Limited (Shell), concluded an agreement with the government of Kuwait to explore, drill and produce crude for 45 years. The area covers about 1,500 square nautical miles off the shore of Kuwait. The concession calls for: a signature bonus of £ 7 million, a further £ 7 million on the fourth anniversary (or production reaching 100,000 b/d) and an additional £ 4 million when production reaches 200,000 b/d, 300,000 b/d, 400,000 b/d and 500,000 b/d. An annual rental of £ 1 million is to be paid the state until discovery in commercial quantities and thereafter £ 2 million until exports begin. Then the pre-export royalty is 12.5 per cent; all of which may be taken in kind. After the discovery in commercial quantities the government may purchase an interest up to 20 per cent in the company.

---

<sup>1</sup>Charles Issawi and Mohammed Yeganeh, op. cit., p. 38.







A relinquishment clause provides for 20 per cent of the unexploited area to revert to the state three years after commercial discovery and a further 20 per cent of such areas to revert at five year intervals thereafter.<sup>1</sup>

The single local company holding a concession is the Kuwait National Petroleum Company (KNPC), founded in 1960 with the Kuwaiti government subscribing to 60 per cent of original shares.

### Taxation

The tax rates applicable to oil companies have been discussed previously in the context of the particular oil concessions. In the computation of income the following items are allowed as deductions:<sup>2</sup>

- a) The cost of goods sold, or services rendered, in connection with the carrying on of trade or business in Kuwait.
- b) Expenses in connection with the carrying on of trade including: exploration, drilling, development, administration, overhead and establishment, contributions, pensions or other plans set up for the benefit of employees.
- c) A "reasonable" amount for the exhaustion, depreciation and obsolescence at the following rates:

---

<sup>1</sup>Ibid., p. 36 and Petroleum Taxation International, Petroleum Taxation - Middle East, Kuwait, op. cit., p. 1-9.

<sup>2</sup>Petroleum Taxation International, Petroleum Taxation - Middle East, Kuwait, op. cit., pp. 3.3-3.4.



Buildings (offices, dwellings, stores, etc.)	4 %
Roads and bridges	4
Tanks, pipelines, jetties and wharves	5
Furniture and equipment (office)	15
Plant, machinery and equipment	10
Automobiles, etc.	33.3
Lorries and Trailers	25
Marine craft	7.5
Aeroplanes	25
Drilling and clean-out tools	33.3
Service station buildings and driveways	10
Service station equipment	15
Refining plants, pipelines (within refinery)	10

- d) Bad debts, claims for damages and  
destruction or loss of stock in trade.

Losses may be carried forward and set off against the amount of income in subsequent taxable periods until all such losses are carried forward. There is no personal income tax as such in Kuwait since taxes are payable only by those individuals and companies engaged in the petroleum industry.

### Qatar

As in Iraq and Kuwait, there is no petroleum law as such in Qatar so petroleum operations are governed by concessions negotiated directly with the Ruler, the Sheikh or Qatar.

The Anglo-Iranian Oil Company obtained the first concession in 1935. The terms of this agreement included exclusive rights over the area of Qatar, consisting of about 4,200 square miles, for 75 years; a cash bonus of



Rs. 400,000 (Rs. 13.3 = 1), annual sums of Rs. 150,000 for the first five years (thereafter Rs. 300,000) and a royalty of Rs. 3 per ton. Provision was made for customs and taxation exemption and full freedom of construction and operation. Subsequently, Iraq Petroleum Company formed the Petroleum Developments (Qatar) Ltd. and took over the Anglo-Iranian Oil Company concession in 1937. A revision of the original agreement in 1951 increased the royalty from Rs. 3 to Rs. 10 per ton and the following year an equal profit-sharing formula was adopted. The company was renamed Qatar Petroleum Company, Limited, in 1953.<sup>1</sup>

The Sheikh of Qatar made claim, in 1949, to the submarine continental shelf area of his coasts and granted the second of three present concessions to the International Marine Oil Company (owned by Superior Oil Company and Central Mining and Investment Corporation). This concession, covering Qatar offshore regions beyond the three mile limit, was relinquished in 1951 and picked up by the Shell Overseas Exploration Company. The Shell concession over this 10,000 square mile area was for a term of 75 years and provided for a cash bonus payment of 260,000 and the application of the equal profit-sharing formula upon discovery.<sup>2</sup>

---

<sup>1</sup>Stephen H. Longrigg, op. cit., pp. 105-106; Charles Issawi and Mohammed Yeganeh, op. cit., p. 37.

<sup>2</sup>Stephen H. Longrigg, op. cit., p. 231.





The concession of Qatar Petroleum Company discussed above remained virtually unchanged over the years with the important reservation that in 1961 the Company relinquished one-third (1,737 square miles) of its total concession and a further 1,237 square miles in 1963, thus keeping only one quarter of its original area of 4,200 square miles. In 1965 yet another 1,104 square miles was given up and nothing but an area of some 50 by eight miles being retained (The Durham structure). These relinquished lands made up the concession granted to the Continental Oil Company and this concession was extended by a further grant of the marine areas relinquished by Shell of Qatar. However, Continental abandoned its Qatar venture in 1968 and part of their concession became part of the third concession now in operation in Qatar namely, that 7,500 sq. km. tract of offshore acreage awarded to a group of four Japanese companies in March 1969. To operate the venture a new company was established called the Qatar Japan Oil Company.<sup>1</sup>

The terms of the agreement included: a duration of 35 years; bonus payment of \$2 million on signature, \$2 million on commercial discovery, \$3 million when production reaches 100,000 b/d and \$4 million when production reaches 200,000 b/d. There is an annual rental of \$100,000 per

---

<sup>1</sup>Ibid., pp. 417-418; Petroleum Legislation I, Qatar, op. cit., p. 9.





year and a royalty of 12.5 per cent of the posted price rising to 14 per cent on production over 100,000 b/d. The tax is 50 per cent on the basis of posted price and finally a relinquishment clause calls for 30 per cent of the area to revert to the state after five years, a further 25 per cent of the original area returned after eight years and another 20 per cent after ten years.<sup>1</sup>

### Taxation

Oil and gas operations are subject to the provisions of the Qatar Income Tax Decree of 1954 and as amended in 1955 and 1964. The percentage tax payable on net income has been explicitly given in each of the concessions discussed. This rate normally being 50 per cent of net income based on posted prices. The 12.5 per cent royalty, now expensed, increases the effective government share.

In the computation of income Qatar's provisions are very similar to those of Kuwait especially those specifying allowable deductions. Qatar's law is less specific on the matters of depreciation, exhaustion or obsolescence stating only that "a reasonable amount" may be so claimed and where a particular agreement prescribes a basis for such calculations, the amount so arrived at will be deemed reasonable. Although losses may be claimed there is no mention of the possibility of "carrying

---

<sup>1</sup>Petroleum Legislation I, Ibid., pp. 9-10.



forward" such losses.<sup>1</sup> Again similar to Kuwait, there are no personal income taxes in Qatar.

### Saudi Arabia

As in the case with the last few Middle Eastern Nations discussed, there is no general oil law in Saudi Arabia and most of the country is covered by concession agreements. By far the most important of these is the concession held by the Arabian American Oil Company (ARAMCO). Before this agreement is discussed in some detail recent events will be surveyed particularly with reference to the other existing, but less important, concession agreements.

In 1962 a General Petroleum and Mineral Organization (PETROMIN) was created with its field being that of oil affairs in their widest range, including oil-based industries. In the last decade the Government had dealings with several foreign concerns one of which was the Italian Ente Nazionale Idrocarburi (ENI), joined later by Phillips Oil, for a concession agreement over an area of about 37,000 square miles. Another enterprise was an arrangement, finalized in 1965, with the French Government-owned concern Societe Auxiliare de la Regie Autonome des Petroles (AUXIRAP) whereby PETROMIN took a 40 per cent share in an

---

<sup>1</sup>Petroleum Taxation International, Petroleum Taxation - Middle East, Qatar, op. cit., pp. 3.1-7.3.



offshore area off the Red Sea.

In 1967 a two part agreement was signed among the Saudi Arabian Government, PETROMIN and AGIP (an Italian statal concern). Part I of the agreement gave PETROMIN exploration and exploitation rights over a 77,382 square kilometer area and part II transferred these rights to AGIP while PETROMIN retained legal title to the area.<sup>1</sup>

#### ARAMCO

The principal concession of ARAMCO covers an area of some 355,000 square miles of Saudi Arabia including offshore areas and Saudi Arabia's undivided half interest in Iraqi-Saudi Arabian Neutral Zone. The original concession was signed for a 60 year term in 1933 by Standard of California and assigned to an affiliate created for the purpose, the California Arabian Standard Oil Company (CASOC). Three years later the basis of CASOC was broadened giving Texaco a half-share. An additional area of 85,000 square miles was granted to CASOC in 1939, also for 60 years, giving the Standard-Texaco shared company a total area of 440,000 square miles. Ownership of ARAMCO is now split among four companies: 30 per cent each by Standard of California, Texaco and Standard of New Jersey and 10 per cent by Socony Mobil Oil Company.

---

<sup>1</sup>Petroleum Legislation I, Saudi Arabia, op. cit.,  
pp. 1-24.





The original concession provided for an initial loan by ARAMCO of 30,000 gold pounds (about U.S. \$250,000; 1 gold £ = \$8.25), an annual rental of 5,000 gold pounds, two loans of 50,000 gold pounds each when commercial oil was discovered and a royalty of four gold shillings per ton.<sup>1</sup>

On the "additional area" annual rent was 20,000 gold pounds, and 100,000 pounds on discovery along with a signature payment of 140,000 pounds. A further loan of \$3 million was made in 1941. Exemption was given from all direct and indirect taxes.<sup>2</sup>

### Royalties

As is normally the case, the annual rental ceased on commercial discovery and was replaced by a royalty of 4 gold shillings per ton (22 cents per barrel). The royalty on natural gas was 12 1/2 per cent on gas sales.

An agreement was signed with the Government in 1965 whereby the royalty would be expensed thereafter to the extent of 12 1/2 per cent of posted price, the company would retain its previously held marketing allowance of one-half cent per barrel and would be allowed a basic

---

<sup>1</sup>A Company-Government agreement after the War equated 1 gold with \$12 and had the effect of raising royalties from 22 to 34 cents per barrel. However, the income tax agreement of 1950, discussed later, held that the royalty would remain at four gold shillings, to be calculated thereafter at official bank rates.

<sup>2</sup>Stephen H. Longrigg, op. cit., pp. 1-6-110, 209-211 and Petroleum Legislation I, Saudi Arabia, op. cit., pp.1-5.



8 1/2 per cent discount off posted price in computing taxable income for 1964. This discount would diminish by one per cent for each of the following two years and thereafter would be determined by competitive factors.

#### Income Tax

Late in 1950 the Government passed an income tax law providing for a 50 per cent tax on companies engaged in oil production. On December 30, 1950, ARAMCO signed an agreement bringing an end to its exemption from taxes and providing:

- 1) the total of taxes and government income would not exceed 50 per cent of gross company income after losses and depreciation.
- 2) the company would be permitted to pay such taxes in the proportions it received currencies from its sales.

Further, ARAMCO agreed to pay a sum of about \$70 million on amended income tax declarations for the period December 1951 to October 1953. On the following 27 month period ARAMCO agreed to pay another \$7 million on amended income tax declarations.

In the computation of taxable income deductions are permitted as follows:

- a) All ordinary and necessary expenses,
- b) Travel expenses connected with the business,
- c) Rentals for properties rented in connection with the business,



- d) Any losses incurred by the business and not otherwise compensated for,
- e) A reasonable amount for depreciation for properties used in operations.

There is no provision for the carry over or back of operating losses and capital gains are included in gross income. Depreciation allowances depend on the taxpayer's ability to show the life expectancy of the assets involved. The principle of amortization of capital outlays is accepted where the physical life is controlled by factors other than life expectancy, as for instance, in the case of leasehold improvements. Percentage depletion of mineral resources is unknown.<sup>1</sup> Although all residents are required to pay income tax there is a provision of "no double taxation" in Saudi Arabia so that there are no taxes on dividends.

In early 1967 ARAMCO offered the government the same crude-oil resale deal which the consortium concluded with the Iranian government in 1966. This offer provided that over and above its regular production ARAMCO would deliver 20 million tons to the Government in the 1967-71 period for export (on barter terms) to certain East European countries, namely, Czechoslovakia, Poland, Romania, Bulgaria and Hungary.

---

<sup>1</sup>Petroleum Taxation International, Petroleum Taxation, Middle East, Saudi Arabia, op. cit., pp. 1.7-1.9.





Further, ARAMCO agreed to change the basis for tax calculation, on sales to nonaffiliated third-party companies, from realized prices to full posted prices. ARAMCO paid \$67 million for the retroactive period, back to January 1961. This agreement made the Saudi government income per barrel the highest in the Middle East, namely 85.3 U.S. cents per barrel.<sup>1</sup>

Since the mid sixties, under the OPEC agreements, the 12.5 per cent royalty became an expense item for income tax purposes. The 50-50 sharing of profits was maintained beyond royalties paid thereby increasing the government's share.

### Economic Implications of Concessions

#### Government Revenues

Until 1950 payments to the governments of the Middle East were made mainly on the fixed royalty basis established in the 1920's and 1930's. Although in most countries the absolute amount received by governments increased, the sharp rise in oil prices greatly reduced the governments' share from oil income, even where royalties were on a gold basis. It was only after the conclusion of the 1950-54 profit sharing agreements, and subsequent amendments, that the governments' share rose appreciably.

---

<sup>1</sup>Petroleum Legislation I, Saudi Arabia, op. cit.,  
p. 7.





Government receipts per barrel are still higher in Venezuela than in the Middle East, although in the latter they rose from an average of 21 cents before 1948 to 41 cents in 1951 and 74 cents in 1960. The combined share of the Middle Eastern governments went up from 20 per cent of gross revenue in 1948 to 38 per cent in 1953 and 46 per cent in 1960. This huge absolute increase in revenues represents a ninefold increase between 1948 and 1960.<sup>1</sup> By the late sixties government receipts in the Mid-East varied from 75 to 85 cents per barrel and averaged about 58 per cent of the gains from petroleum.

Summarizing the financial results of petroleum operations in the Middle East from their establishment at the turn of the century until 1960, it is estimated that gross receipts from exports and local sales of crude and refined products amounted to approximately \$32.1 billion. After deducting an estimated \$5.9 billion for costs of operations, the industry's gross income, before payments to governments, was estimated at \$26.2 billion for the period. Of this gross income a sum of \$9.9 billion was paid to governments as royalties, rents, taxes and share in profits. The balance of \$16.3 billion accrued to the oil companies. About \$1.7 billion of this net income was reinvested in the industry and the remaining \$14.6 billion

---

<sup>1</sup>Charles Issawi and Mohammed Yeganeh, op. cit., Chapters V and VIII.



transferred abroad.<sup>1</sup> Oil revenue as a percentage of total government revenue for Mid-East countries in 1964 varied from 37 per cent in Iran to 97 per cent in Qatar.

### Capital Flows

Until recently, almost the entire investment in the petroleum industry in the Middle East had been financed and controlled by the eight major oil companies. Practically no national capital participated in the development in the region's industry either directly or indirectly. This was due largely to the shortage of capital in the area, especially capital in large blocks, willing to take substantial risks.

However, the participation of smaller independent companies in the area's industry, the government mobilization of local resources for the petroleum industry and the transfer of the assets of the Anglo-Iranian Oil Company to the government of Iran in 1954 have brought about considerable changes in the pattern of distribution of ownership and control in the Middle Eastern industry. British interests declined to 18 per cent of fixed assets by 1959 from 44 per cent 12 years earlier, American interests rose 10 per cent to 50 per cent and the share of other countries jumped to 24 per cent from practically nothing in the same period.

---

<sup>1</sup>Ibid., p. 108.



The initial costs of development were financed by imports of capital from abroad while development after the production and export of petroleum in commercial quantities has been carried out by the utilization of depreciation funds and part of the net income. The original capital brought into the region by foreign companies was estimated at \$600 million early in 1960 with Saudi Arabia and Iran together being recipients of over half. At the same time original capital accounted for about one-fifth of the total capital employed in the region leaving the remaining four-fifths financed from depreciation, amortization funds and net income.<sup>1</sup>

#### Comparison of Canadian-Middle Eastern Petroleum

##### Taxation

The deductions permitted from gross receipts to determine gross profits (net profits before taxes) are similar in the Middle East and Canada. All countries, except Iran in their five offshore concessions of 1956, provide for the full and immediate expensing of exploration, drilling and development expenditures. In regard to depreciation, the Canadian provisions appear to be much more liberal. Iran and Qatar allow only for a "reasonable" amount, Saudi Arabia puts the onus on the taxpayers to show the life time of the asset and even then depreciation must

---

<sup>1</sup>Ibid., pp. 58-59.





be computed on a straight line basis. Iraq and Kuwait are more specific but permit a rate, on most assets, of about one-third of the Canadian rate of 30 per cent on the diminishing balance. Although the Canadian advantage here has diminished somewhat in the last few years the effect is still to over-state gross income in the Middle East or conversely to under-state the gross income of petroleum interests in Canada with respect to the Middle East.

It has been already mentioned that the share of gross profits going to Canadian governments is about 43 percent. Rentals and bonuses, should there be any, would increase the Canadian governments' share by a small margin. The 50-50 profit sharing agreements, prevailing since the 1950's in the Middle East, provide for 50 per cent of net profits to be paid to government. Since the mid-sixties this 50 per cent share does not include royalties, normally 12.5 per cent, which are expense items in computing taxable income. The same situation is in effect in Canada. These arrangements result in about 58 per cent of profits going to government and 42 per cent going to oil companies.<sup>1</sup> The more restrictive provisions in regard to depreciation increases government receipts in the Middle East relative to Canada (see chart, page 151).

---

<sup>1</sup>Henry Catton, The Evolution of Oil Concessions in the Middle East and North Africa (New York: Oceana Publications, Inc., 1967), p. 79.



On the whole, the Canadian provisions are more liberal with regard to the carrying forward of losses. The Canadian carry forward period is matched only by Juwait which also allows losses to be carried forward indefinitely. Iraq has a five year carry forward period but Iran, Qatar and Saudi Arabia have no provisions on the carrying forward of losses.

The withholding tax on dividends paid to non-residents is higher in Canada, being generally 15 per cent while it is 10 per cent in Iran and Iraq and non-existent in Kuwait, Qatar and Saudi Arabia.

It is also interesting to note that income taxes in Kuwait and Qatar are payable only by individuals and companies engaged in petroleum exploitation -- otherwise there is no personal income tax in these two countries. However all residents of Iran, Iraq and Saudi Arabia are taxpayers as all employed residents are in Canada.



## CHAPTER V

### NORTH AFRICA

#### Background

Since 1962, in comparison with North and South America, Middle East and Europe, North Africa has had the largest yearly percentage increase in crude oil production. By the end of 1963 North Africa (excluding Egypt) was producing at a level of one million barrels per day (50 million metric tons per year) representing 3.7 per cent of world production compared with virtually nothing a few years earlier. For the year 1967 African production of crude totalled over 140 million tons representing about 8 per cent of the world production of over one and three quarter billion tons.<sup>1</sup>

In decreasing order of production the principal oil producing countries of Africa are: Libya, Algeria and Nigeria. These countries are quite different in character as well as in resources and this is reflected in their individual oil policies which will now be examined.

---

<sup>1</sup>United Nations, Statistical Yearbook, 1968 (New York: Statistical Office of the United Nations, Department of Economic and Social Affairs, 1969), pp. 207-208.





## Libya

Libya's first petroleum law was passed in 1955, the first well drilled in 1956, the first major discovery made in 1959 (Esso's Zelton field) and commercial production with export started in mid 1961 at the rate of 23,000 barrels daily. No country has ever run through the whole gamut of oil development -- from preliminary exploration to major exporter -- in so short a period.

The petroleum law of 1955 provides for only two stages, namely reconnaissance and concession. The latter covers exploration and exploitation. The Libyan Government agency, the Supreme Petroleum Affairs Council in the Ministry of Petroleum Affairs, will consider applications for permits or concessions from eligible applicants and in determining such eligibility will consider:

- a) The furtherance of the public interest.
- b)
  - i) The applicant's compliance with the relevant laws and regulations;
  - ii) previous activities in the industry;
  - iii) previous experience in the conduct of similar operations;
  - iv) his financial and technical capacity to conduct the contemplated operations.<sup>1</sup>

Further the applicant company must be registered in Libya and there is no restriction based on nationality,

---

<sup>1</sup>Libya, The Petroleum Law, 1955. Art. 5.





ownership and size but connections with Israel may adversely affect the application.

### Reconnaissance Stage

Permits or licences for reconnaissance work grant a non-exclusive right to preliminary or surface exploration. They cover larger areas than exploration licences and may be granted to several companies over the same area. There is no maximum area for reconnaissance permits in Libya, the duration is one year with an unspecified number of renewals possible.

A fee of 500 Libyan pounds (exchangeable at par with the pound sterling) must be paid for the issue of a permit and renewal is on payment of the fee. No work obligation is stipulated but an annual report is demanded and a detailed program of work, which must be complied with accompany applications.<sup>1</sup>

### Concessions

These grants cover both exploration and exploitation and the applicant need not be the holder of a reconnaissance permit. The maximum area that may be held by a concessionaire is 220,000 square kilometers (84,942 square miles) in the four petroleum zones into which the country is divided. The total concession area is reduced by 25 per cent within

---

<sup>1</sup>Ibid., Art 6(6) and para. 13 of the First Schedule.



five years and by a further 25 per cent of the original area within eight years. Further relinquishments vary in the four zones.

The maximum duration of an initial term is 50 years and is renewable for another term provided that the total duration does not exceed 60 years. An initial fee of 100 Libyan pounds per 100 sq. km. is payable on the granting of a concession and an annual surface rent per 100 sq. km. is payable in varying amounts in the four zones, not exceeding 20 pounds for the first 15 years. On commercial discovery the rent increases to 2,500 pounds in each zone for the remainder of the first 15 years and then becomes 3,500 pounds for the next five years and finally 5,000 pounds per sq. km. each year thereafter.<sup>1</sup>

### Royalties

The minimum royalty is set at 12 1/2 per cent on all petroleum won and saved into field storage and may be taken by the state either in kind or in money. This minimum may, of course, be exceeded. When taken in money, calculations are based on posted prices.

A company must also pay a royalty of 12 1/2 per cent on the sales price of natural gas after deducting handling charges, duties and costs of transportation from

---

<sup>1</sup>Ibid., Arts. 6-13.



the well-head to the point of sale.<sup>1</sup>

### Taxation

A petroleum company is required to pay 50 per cent of its net profits before taxes. To determine net profits the company may make the following deductions from gross income:<sup>2</sup>

- a) All expenses and losses, exploration and exploitation expenses, intangible drilling costs, dry hole expenses, administrative and organizing expenses. The expenses of organizing and initiating petroleum operations may be either expensed or capitalized.
- b) Capital expenditures incurred before the "effective date" (exports of 15,000 b/d) amortized at a rate not exceeding 20 per cent per year. Expenditures incurred after such date amortized at a rate not greater than 10 per cent per year.

When deductions exceed gross income, the excess may be carried forward and deducted from profits for a period up to 10 years. Likewise, the company must pay other direct taxes, and when the total of all direct taxes exceeds 50 per cent of profits, the excess may be credited against direct taxes for future years. Only those royalty payments in excess of 12 1/2 per cent are treated as a credit against future tax liabilities. Royalties up to 12 1/2 per cent are an expense and not a credit against

---

<sup>1</sup>Ibid., Second Schedule, Clause 7.

<sup>2</sup>Kubbah, Abdul Amir Q., Libya: Its Oil Industry and Economic System (Beirut: Rihani Press, 1964), pp. 70-71.





tax liabilities.<sup>1</sup>

### Recent Developments

On September 1, 1969, the national government of Libya was taken over by a military junta giving the Arab countries a new pressure tool against the western countries. Commenting on the situation in mid September Beirut's newspaper l'Orient stated:<sup>2</sup>

An oil boycott by the Arab states has thus become theoretically possible. Only one consideration, and it's a weighty one, could restrain them from resorting to this weapon -- the oil revenues which since June 1967 have financed the Palestine guerillas and the weakened economies victimized by Israeli aggression.

However, soon after the coup cries arose from Libyan nationals and certain external forces, chiefly Moscow and Baghdad for outright nationalization of the oil industry in Libya and to "oust the imperialists".<sup>3</sup> By early December demands were being made by the new military government to increase posted crude-oil prices and this demand reached a critical stage in early 1970 when the new prime minister, Col. Moammer Khedaffi issued a threat tantamount to requiring that companies grant the

---

<sup>1</sup>Petroleum Taxation International, Petroleum Taxation - North Africa, Libya, op. cit., pp. 2.20-2.21.

<sup>2</sup>Frank J. Gardner, "Libyan Coup Tightens Socialist Hold on Oil," Oil and Gas Journal (September 29, 1969), p. 43.

<sup>3</sup>Frank J. Gardner, "Out of Cairo - Hope," Ibid. (November 10, 1969), p. 139.



increase or leave Libyan soil (although no specific increase demand had been made public).<sup>1</sup>

Shortly following this development a government delegation from Paris arrived in Tripoli for "wide ranging" talks on Libya's economic future. High on the agenda of those talks was the subject of French-Libyan joint ventures in oil.<sup>2</sup> Libya's council of Ministers assumed complete control over any important government actions to do with oil in early March. A change in the petroleum law gave the council control over oil-concession matters. Meanwhile a second French delegation visited Libya to examine economic and technical aspects of Franco-Libyan collaboration in oil matters.<sup>3</sup>

Posted price negotiations were still going on in July 1970 after Libya had taken over all Italian and Jewish property in the country. It was announced that the Italians would not be compensated for their property but the Jewish people would. Whether the confiscation would affect Italian ENI's oil holdings in Libya is, at the time of writing, still not clear.<sup>4</sup>

---

<sup>1</sup>Oil and Gas Journal (February 9, 1970), p. 29.

<sup>2</sup>Frank J. Gardner, "For Libya - A Coup de Theatre?" Ibid. (February 16, 1970), p. 49.

<sup>3</sup>Oil and Gas Journal (March 9, 1970), Newsletter.

<sup>4</sup>Frank J. Gardner, "The Ax Hangs High Over North Africa," Ibid. (July 27, 1970), p. 75.



## Algeria

### Background

The legal provisions for oil and gas in Algeria are closely tied to the conditions under which the country became independent in July 1962, and its subsequent association with France. The 1962 conditions, called the Evian Agreements, included the legal provisions for petroleum in the form of the Saharan Petroleum Code originally promulgated by France. These provisions were repealed, however, by the French-Algerian Accord of 1965 which had the affect of a treaty between the two countries. The new agreement affected first French companies but the 1965 agreement put other countries in the Sahara under strong pressure to adapt their concessions to its terms and they are under legal obligations to do so by later decree.

The new agreement respected the terms of the Evian Accords and thus guaranteed the tenure of existing oil producing concessions held under the Saharian Code. Some of the terms, however, particularly tax rates, were changed to provide the government with increased revenues which were now subject to a 50-50 "Cooperative Association" between France and Algeria.<sup>1</sup>

---

<sup>1</sup>International Petroleum Institute Inc., International Petroleum Industry, II (New York: Gordon H. Barrows, 1967), pp. 90-91.





### Prospection Authorization

A prospecting authorization may be issued to any natural or legal person (or jointly to several of such persons) who need not be incorporated under Algerian law. The duration of the authorization is six months and is renewable, under the same conditions for an unspecified number of successive six month periods. There are restrictions on the shape the prospecting permit covers but are no provisions on the size, number of permits or acreage covered. The rights granted are non-exclusive and do not give the right to obtain an exploitation title. There are no working obligations and no rentals payable.<sup>1</sup>

### Exploration Permit

No one may obtain a Permit "H" without proof of its technical and financial capacities necessary. A permit is granted only to commercial companies or to associations of companies. The maximum duration is five years, plus two possible maximum five year extensions and on the first extension the permit must be reduced to 50 per cent of its original area with a further 25 per cent relinquishment of the remaining area on the second extension. There are the same restrictions on shape as for a prospecting authorization and similarly there are no provisions on size

---

<sup>1</sup>Petroleum Legislation I, Algeria, op. cit., p. 3.





or number of permits. There are certain work obligations notably exploration drilling but there are no surface rentals and the permit may be relinquished in whole or in part in accordance with specific regulations. On the termination of a permit the wells, turbin and wellheads must be left in place and if not purchased by a new permittee within two years becomes the property of the state.

During the life of an exploration permit the holder may, by virtue of a provisional exploitation permit, exploit the productive wells for a maximum period of two years.

#### Exploitation Concession

An applicant must be the holder of an exploration permit and provide proof of technical and financial capabilities. The duration is 50 years with no extensions and limited in size to the area covered by the exploration permit with no provisions on the number of concessions allowed. The rights granted include the disposition of crude extracted (mainly by export), transport within its own installations (pipeline right), to relinquish the concession in whole or in part and to assign subject to authorization.

There are work obligations, notably submission of work programs and estimates of production along with obligations to "pool" with third parties holding



transportation rights in the same geographical area for construction or utilization of pipelines.<sup>1</sup>

### Royalties

The Algerian-French "Cooperative Association" pays no royalties but non-French oil companies pay 12 1/2 per cent of liquid hydrocarbons and 5 per cent of gaseous hydrocarbons calculated on an "ex field" price. This differs from procedures customary in other countries since it takes into account the actual sales realization rather than the usual discountable (at cost to the producer) posted price. The "ex field" price is calculated from the billing price f.o.b. Bougie or La Skhirra and subtracting costs of transportation from the field as well as costs of processing and stabilization.<sup>2</sup>

For French companies the royalties are 12 1/2 per cent of liquids, 5 per cent of gases and 18 3/4 per cent on actual realization of wet gas. The royalty on liquids is based on a reference price determined by the source of the hydrocarbon and its specific gravity.

### Taxation

As a result of the 1965 Accord taxation arrangements

---

<sup>1</sup>Ibid., pp. 6-8.

<sup>2</sup>John C. Pawera, Algeria's Infrastructure: An Economic Survey of Transportation, Communication and Energy Resources, Praeger Special Studies in International Economics (New York: Frederick A. Praeger, 1965), p. 160.



also differ among the Cooperative Association, French companies and non-French companies. These differences are limited to the rates of taxation applicable to the various companies and these shall be briefly dealt with prior to a discussion of tax exemptions and allowable deductions.

#### Cooperative Association

Liquid hydrocarbons:	55 per cent based on an established reference price
Gaseous hydrocarbons:	50 per cent based on actual realizations
Liquid Gas:	55 per cent based on actual realization. <sup>1</sup>

#### French Companies

Originally, the excess of total taxable profits over total royalties was liable for a direct tax of 50 per cent. This was raised by the 1965 Accord in steps to reach 55 per cent for the years after 1968. An established (but negotiable) reference price system is used to determine profits.<sup>2</sup>

#### Non-French Foreign Companies

For the years after 1968, following an upward adjustment of taxes, there is levied a direct tax equal to the

---

<sup>1</sup>Petroleum Legislation I, Algeria, op. cit., p. 9.

<sup>2</sup>Algeria, Franco-Algerian Accord (1965), Art. 23 and Ibid., p. 10.





amount of the difference between 55 per cent of taxable income and 45 per cent of royalties.<sup>1</sup>

The companies, in all three of the above categories, are exempted from all other direct taxes levied against the results of their exploitation and distribution revenues. Further, the companies may import duty-free all material and equipment from countries subject to French customs or from other countries if it can be shown that the items in question are not available from French countries.

Taxable net profits consist of the difference between the value of net assets at the end and at the beginning of the fiscal period, less additions to capital or funds contributed by the company to operations and increased by withdrawals of assets or funds previously devoted to operations. Net assets refer to the excess of assets over liabilities to third parties and to justified depreciation, amortization and reserves.<sup>2</sup>

In the determination of net profits from operations a company may debit the following from the profit and loss account set up for such purposes:<sup>3</sup>

---

<sup>1</sup>Algeria, Ordinance 65-317 (1965), Art. 1B.

<sup>2</sup>Algeria, Statute No. 58-1111 (1958), Art. 64, par. II.

<sup>3</sup>Ibid., par. VII.



- 1) The cost of materials, supplies, salaries of personnel and cost of services rendered by third parties.
- 2) Depreciation and amortization within limits customary in the petroleum industry, including those deferred from during prior deficit periods.
- 3) Overhead charges including expenses, rentals and insurance premiums.
- 4) Interest and discounts on debts up to 8 per cent of principal.
- 5) Losses due to damage or destruction of assets and bad debts.
- 6) The total amount of the royalty paid.
- 7) Reserves established to meet subsequent losses.
- 8) All other losses or charges related directly to operations.

The above provisions were amended slightly for the Cooperative Association, specifically in regard to depreciation, by the Franco-Algerian Pact of 1965. Almost identical amendments, applicable to non-French petroleum companies, were instituted under Ordinance 65-317 in 1965. The result of these amendments was to give particular rates of depreciation for the various kinds and groups of assets.<sup>1</sup>

### Nigeria

The principal regulatory legislation is the recent Petroleum Decree No. 51, dated November 27, 1969. By this

---

<sup>1</sup>For the complete list of these depreciation rates see Algeria, Franco-Algerian Accord, (1965) Appendix II and Algeria, Ordinance 65-317, (1965).



document the military government decreed the entire ownership and control of all petroleum be vested in the state including domestic land, territorial waters and the continental shelf. The Commissioner may grant an exploration licence, prospecting licence and an oil mining lease to citizens of Nigeria or companies incorporated in Nigeria. All licences must be applied for in accordance with the applicable regulations.<sup>1</sup>

#### Oil Exploration Licence

The licence does not confer any exclusive rights over the area, not exceeding 5000 square miles, and such licences terminate at the end of each calendar year but may be then renewed if approval is given. Within one year a detailed program for the recruitment and training of Nigerians must be submitted and drilling must begin within eighteen months. The application fee is 50 pounds and an annual rent of 250 pounds is payable for every year the licence is in force.<sup>2</sup>

#### Oil Prospecting Licence

The licence gives the exclusive right to explore and prospect for petroleum within the licence area, not exceeding 1000 square miles. The duration does not exceed five

---

<sup>1</sup>See Basic Oil Laws and Concession Contracts, North Africa, Supp. No. XXII, B-1, Art. 1.

<sup>2</sup>Ibid., A-1 - B-29.





years, including renewal periods. The holder has no right to assign his licence but may terminate at any time having given three months notice. However, assignments may be applied for accompanied by the required fee of 200 pounds. A prospecting licence may be revoked by the Commissioner with cause but if a satisfactory explanation is given the lessee may be given a specified period to rectify the matter. The lease holder, with the approval of the Chief Petroleum Engineer, may erect structures and machinery necessary for operations and also has the right to dismantle and remove them. On application a fee of 100 pounds is payable. The annual rent, unless otherwise stated in the special conditions of the licence is one pound for each square mile.<sup>1</sup>

#### Oil Mining Lease

A lease may be granted only to the holder of a prospecting licence who has satisfied all its conditions and has discovered oil in commercial quantities (10,000 b/d). The duration does not exceed 20 years but may be renewed on approval and the area of a lease is limited to a maximum of 500 square miles. The terms also include exclusive rights over the leased area and a relinquishment clause requires one-half of the area to be returned to the state after 10 years. Again, leases may not be assigned

---

<sup>1</sup>Ibid.





without prior approval and termination is permitted if three months notice is given. The revocation provisions are exactly similar to those under prospecting licences.

Within 10 years a holder of an oil mining lease must ensure then the number of Nigerian citizens employed in managerial, professional and supervisory grades must reach at least 75 per cent of the total number employed in those grades. Further, all skilled, semi-skilled and unskilled workers must be Nigerian citizens.

The fee payable on application for an oil mining lease is 200 pounds. The annual rent for the first ten years for each square mile is 10 shillings and thereafter increases to one pound.<sup>1</sup>

### Royalties

The licensee or lessee must pay to the Commissioner at the end of every quarter 12 1/2 per cent of crude oil extracted and of any other liquid hydrocarbons obtained from natural gas or not refined or otherwise treated. This royalty is based on posted prices. Further, a royalty of 10 per cent is payable on the sale of natural gas.<sup>2</sup>

### Taxation

Profits made by a company engaged in petroleum

---

<sup>1</sup>Ibid.

<sup>2</sup>Ibid., B-26, Art. 60.



production are exempt from normal tax under the companies Income Tax Act of 1961 but are subject to tax under the Petroleum Profits Tax Ordinance of 1959 as amended in early 1967. The amendment had the effect of a substantial tax boost by providing that profits would be computed on posted prices retroactive to January 1966 and that royalties would be expensed thereafter as in the OPEC arrangement concluded a few years earlier. The tax rate remained at 50 per cent and from this tax the following deductions permitted:<sup>1</sup>

- 1) all non-productive rents paid during the period;
- 2) all duties and other imposts paid to the Nigerian Government in that year (excluding payments for services);
- 3) the amount by which the total of (1) and (2) above exceeded 50 per cent of the profit in any previous year until all this excess has been deducted from taxes.

As mentioned, the basis for taxes are posted prices and the deductions from gross income in determining profits include all expenses incurred whether within or without Nigeria in the carrying out of operations. The following items are non-deductible costs.<sup>2</sup>

---

<sup>1</sup>Nigeria, Petroleum Profits Tax Ordinance (1959), art. 17, sec. 2 and Nigeria, The Petroleum Profits Tax (Amendment) Decree (1967), art. 1, sec. 6.

<sup>2</sup>Nigeria, Petroleum Profits Tax Ordinance (1959), art. 11, sec. 1.



- 1) Any sums deductible under (1), (2) and (3) above.
- 2) Pension payments, etc., except those approved by the Board of Revenue.
- 3) Interest on loans from associated companies.
- 4) Sums recoverable from insurance or indemnities.
- 5) Expenditures not exclusively made for the purposes of operations.

Allowances in respect of capital expenditures are considered "special deductions" and as such an "initial allowance" is permitted in the year of first use and in subsequent years an annual allowance is made until the asset is fully amortized.<sup>1</sup>

	Initial Allowance as % of Expendi- ture	Annual Allowance as % of Expendi- ture
Capital Expendi- ture on Buildings	20	10
Capital Expendi- tures on Plant and Equipment	40	At Board of Revenue's dis- cretion having regard to
Other Capital Expendi- tures including costs of petroleum rights and exploration costs		useful life of asset, subject to minimum of 15

The capital allowances deductible in any one year are limited in that the tax paid may not be more than 15 per cent less than what would be paid if no such allowances

---

<sup>1</sup>Ibid., art. 15 and Second Schedule.





were available. Intangible drilling costs are treated as expenses in the year in which they occur. Losses may be carried forward without limitation.<sup>1</sup>

Companies engaged in marketing and refining are subject to normal income tax at the rate of 40 per cent under the Companies Income Tax Act, 1961. There is no capital gains tax in Nigeria and no provisions regarding depletion.

### Economic Implications of Concessions

#### Government Revenues

The government's revenue from oil in Libya was a minor source of income prior to 1962. In 1961 Libya revised its oil code redefining and increasing the companies' taxable income by permitting fewer deductions. Prior to this time provisions allowed for rapid amortization and percentage depletion. Abdul Amir Kubbah in his book stated that government revenues under the 1961 code were 37 per cent higher in 1962 than they would have been under the 1955 code. These 1962 oil revenues totalled \$36 million, or just over 61 per cent of total revenues. The tremendous growth of revenue from this source is shown by the 1963 total of \$76 million and the 1964 total of \$160 million. Even more astounding is the 1965 total, for which no firm

---

<sup>1</sup>Ibid.



figures are available, but estimated to be \$252 million.<sup>1</sup>

Government revenue from oil and gas in Algeria has grown from \$20 million to \$70 million in the 1961-1965 period representing a much less dramatic growth than revenues in Libya. Algeria's annual operating budget is in the neighborhood of \$600 million (1963 estimate) so on a percentage basis petroleum contributed 3.3 per cent of total revenues in 1961 and about 12 per cent in 1965. However this percentage is now increasing markedly since in the early 1960's oil companies paid no income taxes because no taxable income was earned after amortization of investment and the deduction of the deferred depletion allowance.<sup>2</sup>

In Nigeria government revenues from oil and gas production have remained around 6.5 per cent of total government revenues from 1961 to 1966 although increasing in absolute terms from about \$25.6 million to over \$36.6 million. However, these figures do not give the true picture. Rents from oil and gas increased 2.6 times during the 1961-1966 period and royalties increased 6.5 times. Lump sum payments by new oil companies for prospecting rights made up about \$17 million of the 1961 total of

---

<sup>1</sup>John Lichtblau, "Oil in the North African Economy," in State and Society in Independent North Africa, The James Duce Memorial Series, Vol. I, ed. by Leon C. Brown (Washington: The Middle East Institute, 1966), p. 280.

<sup>2</sup>John C. Pawera, op. cit., Chapter 11.



\$25.6 million in oil revenues. Because of the heavy build-up of depreciation allowances due to the heavy backlog of investment during the two decades of exploration, the share of government in profits was much less than 50 per cent. The full share of government only became fully effective in the last year or two, for which no figures are available, and now the annual contribution of the oil industry to Nigeria is much more considerable.<sup>1</sup>

### Other Implications

The impact of oil on the three economies varies greatly because, in part, of the wide dispersion in size. The population of Libya in the early sixties was about 1.2 million, Algeria 9.5 million and Nigeria 35.7 million. Libya, being smaller and with a much less developed economy, experienced a tremendous impact from the discovery of oil. This impact can be seen from the fact that in 1965 oil exports accounted for 98 per cent of total exports. As a result Libya's balance of trade has turned from a \$128 million deficit in 1961 to a large and growing surplus since 1963. Another pertinent statistical comparison is between the \$250 million oil company expenditures in 1963 and the approximately \$35 million in value added by all

---

<sup>1</sup>Adebayo Adedeji, Nigerian Federal Finance: Its Development, Problems and Prospects (London: Hutchison Educational Ltd., 1969), Chapter 7.





Libyan industrial activities in 1958.<sup>1</sup>

Although gross national product more than doubled between 1963 and 1966, the balance of payments is now showing a substantial surplus and government revenue has grown markedly, the petroleum boom has not been entirely an unmixed blessing in Libya. While early oil investments created rapid expansion of imports and service activities, there was almost no effect on agriculture and industry. The country still suffers from a serious shortage of manpower. The government intends to spend 70 per cent of oil revenue for development but the rapid increase in government expenditures has placed considerable strain on the economy and has resulted in many bottlenecks, mainly in view of the scarcity of manpower at all levels. This has led to relatively large price and wage increases and the trend has not been halted. In the light of this, the government has reappraised priorities in the development program giving the prime consideration to rapid increase in output and manpower training.<sup>2</sup>

Some of Algeria's problems associated with the booming petroleum sector are similar to those of Libya especially that of spreading the benefits to the rest of

---

<sup>1</sup>John Lichtblau, op. cit., p. 280.

<sup>2</sup>Abderrahman Tazi, "North Africa and the Middle East," in International Development, 1968. Proceedings of the Tenth Anniversary World Conference of the Society for International Development, John H. Adler, Chairman (New York: Oceana Publications, Inc., 1969), p. 168.





the economy. In addition Algeria has serious population pressures that do not exist in Libya. The economy is still characterized by far reaching structural changes partly stemming from the exploitation of petroleum. The country faces the utilization of existing industrial capacity and labor force, the integration of the modern and traditional agricultural sectors and the training of personnel for top positions in management and administration.

As for the origin of funds, till 1957 financing of petroleum exploitation came from public sources with an increasing participation of private investors after 1958. At that time foreign oil companies entered the picture but their participation was restricted to less than 50 per cent of each individual venture. Although the flow of oil revenues was providing new financial resources since 1959, they were not sufficient to meet the requirements of the expanding exploration and development programs. Additional new funds had to be obtained from the investment markets. Further, the government denies oil companies the right to transport any oil or gas produced and has insisted on making pipelines a state enterprise. The government project will cost about \$60 million mostly borrowed, at five to six per cent, from Kuwait and Britain. The question of financing a project of this magnitude indicates the general problem of how resources should be allocated in a developing country with low capital formation and large foreign



assistance needs. It may be questioned whether the government should undertake such major projects in competition with available private foreign capital or should optimum resource allocation require that the governments capital expenditures be concentrated on improving the country's infrastructure for which private foreign capital is seldom available?<sup>1</sup>

Nigeria is basically still an agricultural economy. In the mid-sixties the total male working force engaged in agriculture, forestry, fishing and hunting totalled about 70 per cent of total male employment and these activities accounted for more than half of gross domestic product. Manufacturing, although increasing by 398 per cent in the 1950's, still accounts for a very small percentage of gross domestic product. The production of oil takes place in typical enclave fashion -- using foreign capital, foreign skilled labor and management, and modern, capital-intensive techniques. In 1964 Shell, the only producer at the time, employed directly only 2800 workers of all grades to export nearly \$100 million worth of oil. Meanwhile in another industry, the production of groundnuts, where the export value was roughly the same, employees numbered in the millions. Obviously, the domestic impact of the oil industry is very different from the peasant exporting sector.

---

<sup>1</sup>John C. Pawera, op. cit., p. 163 and John Lichtblau, op. cit., p. 274.



Earnings of private domestic factors of production from oil exploitation are relatively small. In 1962-63, the total payments to the private sector from the industry in the form of wages, salaries, rents, and the like amounted only to about \$3.5 million, private contractors received another \$7 million and suppliers of intermediate inputs another \$3 million.

However, it cannot be denied that the discovery of petroleum has introduced a whole new element to the character of the Nigerian economy. In the 20 years prior to 1950 Shell-BP alone spent some \$350 million in Nigeria. In 1959 when the budget of the Shell-BP group totalled \$56 million, an increase of 40 per cent over 1958, it was estimated that this source accounted for about 85 per cent of foreign private investment in Nigeria.<sup>1</sup> Under the National Development Plan of 1962-68 foreign private investment was strongly encouraged and by the mid-sixties exceeded the goal of \$100 million per year and although no definite statistics are available certainly the greater part of this figure represents increased investment in petroleum stimulated by progress in the industry at this time.

---

<sup>1</sup>Edward and M. R. Marcus, Investment and Development Possibilities in Tropical Africa (New York: Brookman Associates, 1960), p. 61.





Comparison of Canadian-North African  
Petroleum Taxation

The North African and Canadian provisions in regard to the "items" that may be deducted from gross income in determining taxable income are quite similar as are the applicable tax rates in the two areas. However, the more generous Canadian provisions especially in regard to deductions permitted for depreciation and the Canadian depletion allowance of 33 1/3 per cent of net income before taxes give a substantial tax advantage to companies operating in Canada vis-a-vis the Middle East.

Specifically, both areas allow the deduction of all expenses with regard to production including exploration, drilling and development expenditures. The 30 per cent depreciation rate on buildings, plant and equipment in Canada is greater than that permitted in any of the North African countries under consideration. In Libya the rate is 20 per cent during early production and is reduced to 10 per cent when exports reach 15,000 barrels per day. The rates are more varied in Algeria but are again substantially less than Canada's. Nigeria permits depreciation of plant and equipment at 40 per cent and buildings at 20 per cent in the first year of their use but these reduce to 15 and 10 per cent respectively for subsequent years. Further, the deductions are limited in



Nigeria in that the tax paid must not be more than 15 per cent less than that payable if no depreciation were allowed.

In comparing these four countries: Canada, Libya, Algeria and Nigeria, the percentage depletion allowance is now peculiar to Canada. Libya provided 25 per cent depletion on gross income up to 1961 but it was then cancelled for future concessions. Likewise, Algeria allowed 27.5 per cent depletion on the "ex field" value of production but it was terminated in 1965. There were never any depletion provisions in Nigeria.

Royalties on major producers of crude in Canada (over 750 barrels per day) is  $16 \frac{2}{3}$  per cent compared with a uniform  $12 \frac{1}{2}$  per cent in North Africa. The royalty of  $16 \frac{2}{3}$  per cent on natural gas in Canada compares with  $12 \frac{1}{2}$  per cent in Libya, 5 per cent in Algeria and 10 per cent in Nigeria. The tax treatment of royalties is similar in both areas being treated as an expense item in the computation of income taxes.

The North African share going to government has been found about the same as the share going to Middle Eastern governments, namely 58 per cent.<sup>1</sup> (See Chart, page 151) The substantial benefits to Canadian producers are a direct result of the depletion allowance plus the fact that North African taxes are based on posted prices rather than

---

<sup>1</sup>Henry Cattan, op. cit., p. 79.



realized sales prices -- normally substantially less because of the policy of discounting. In Canada posted prices and realized prices are considered as about the same. The more liberal Canadian depreciation provisions effectively reduces the government's share even further in comparison with North Africa.

Capital gains are included in taxable income in Libya and Algeria but not in Nigeria or Canada. Withholding taxes on dividends paid to non-residents are in effect in Canada, averaging about 15 per cent, but no such "double taxation" exists in any of the North African countries considered.

There is wide variation in provisions regarding the carrying forward of losses in these four countries. Canada, as mentioned before, allows losses to be set off against profits for an indefinite period. There are no provisions permitting losses to be carried forward in Algeria, Libya allows a 10 year carry forward period and Nigeria, like Canada, permits losses to be carried forward indefinitely.





## CHAPTER VI

### ECONOMIC RENT AND APPRAISAL OF CANADIAN CONCESSIONS

Beginning with a brief discussion of the classical theory of "economic rent" in Ricardian tradition and its general meaning, this chapter will be first concerned with an analysis of the "economic rent" concept as it applies to the international petroleum industry. In addition to the more familiar "differential rent" this discussion will primarily center on the more complex "horizon rent" which is peculiar to the oil industry.

The main portion of this chapter will be devoted to a review of the present state of oil concessions in Canada as to their economic efficiency particularly in regard to their effect on resource allocation, the level of exploration activity and international capital flows. The most intensive analysis will be concerned with the unique Canadian percentage depletion allowance and will include a detailed criticism of its present provisions, a discussion of the much suggested gross depletion concept as a possible alternative and recommendations as to what form, if any, this concession should take in Canadian petroleum arrangements.

Also analysed, with somewhat less emphasis, are the other major Canadian concessions including: the rapid write-off of exploration and development expenditures, the





treatment of business losses and the shareholders' depletion allowance. These existing provisions are critically analysed with respect to their effectiveness in achieving their goal of expanded exploration, and recommendations are given in order to increase their benefits to the industry, and the Canadian economy in general.

### Economic Rent

In his book "Principles of Political Economy and Taxation" published in the early nineteenth century, David Ricardo formally defined rent (or land-rent) as "that portion of the produce of the earth, which is paid to the landlord for the use and indestructible powers of the soil."<sup>1</sup>

In contemporary theory, economic rent, no longer identical with land-rent, is viewed in a number of different ways. The payment for the use of land received by the owner which is in excess of the amount which would be received in its next-best use is economic rent, or alternatively, the excess over that required to keep the land in its present employment. Contemporary theorists have also noted that other factors of production sometimes

---

<sup>1</sup>Principles of Political Economy and Taxation, Chapter 2, quoted in John R. Turner, The Ricardian Rent Theory in Early American Economics (New York: The New York University Press, 1921), p. 16.



are fixed in supply and command a return properly called economic rent. Thus rent can be redefined perhaps more accurately as "the difference between the reward to any factor of production in imperfectly elastic supply with respect to changes in its price and its transfer earnings."<sup>1</sup>

### Economic Rent in Petroleum Production

A peculiarity in petroleum cost is in connection with economic rent. In the very short run, any price above bare production (extraction) costs is a rent but unless the price is high enough to also cover the costs of development, dwindling output would soon occur. If, therefore, new production is required in the years immediately ahead, a payment sufficient to evoke it is not a rent but a cost. Now consider if new exploration is required. If such activities are not required, Adelman argues, any payment received by oil companies above development cost is surplus (rent). If new exploration is needed, a sufficient inducement to perform such activities is then a cost and not rent. In the petroleum industry then, there are two different kinds of rents: "differential rents" and what may be termed "horizon rents" which are surplus only in

---

<sup>1</sup>Alfred W. Stonier and Douglas C. Hague, A Textbook of Economic Theory (London: Faber and Faber, 1953), p. 283.



the short run.<sup>1</sup>

Differential rent is the more obvious, especially in the Middle East. The best oil fields in the world will make money under any circumstances; they will never be forced down to "bare cost" (cost of production). But horizon rent is somewhat more complex and peculiar to extractive industries.

Consider a tract of completely unexplored or "rank wildcat" acreage. An oil company is not willing to pay much for the right to explore and produce because it is the few good discoveries that pay for the many failures. It will, therefore, offer only a sort of composite value, averaging in all tracts of this type. Once the tract is drilled, uncertainty gives way to knowledge. If there is no oil, or none worth developing, the producer's money has been wasted. If, on the other hand, the deposit is large, the landowners would wish for higher returns and with foreknowledge the producer would willingly have paid much more.<sup>2</sup>

Because of the nature of petroleum costs, a rich discovery means a dissatisfied landlord who knows his tenant's profit is far greater than necessary to keep him

---

<sup>1</sup>M. A. Adelman, "The World Oil Outlook," in Natural Resources and International Development, ed. by Marion Clawson (Baltimore: The John Hopkins Press, 1964), pp. 74-75.

<sup>2</sup>Ibid., p. 75.





producing. Here, the individual cost of an oil inventory is nearly zero but the social cost is substantial. However, if oil companies were deprived of the hope of making big profits, the so-called "lure of the big strike", then the expected profit of good and bad discoveries taken together will fall and less capital and enterprise will be available, ultimately reducing supply. If for some reason no additional oil finding was desired, the surplus could be confiscated with no ill effects. This is the basic economic distinction between "pure rent" and "quasi rent", which is a surplus in the short run but not in the long run.<sup>1</sup>

This general discussion may now be applied to the discussion of international petroleum. Categorizing the areas considered in this study it may be said that the major producing nations particularly, the Middle East and North Africa are now firmly entrenched in the third phase of the petroleum industry, the production stage. Therefore with no further exploration and pre-production development required, in the short run at least, then the amount presently being received above bare production (extraction) costs is a rent. The taxation policies in effect in these nations are utilized as a device to "cream off" this economic rent. The present lack of depletion allowances and the 50-50 profit sharing

---

<sup>1</sup>Ibid., p. 76.



agreements prevailing in the major producing nations in recent indicates the effort of the host governments in gaining a share of this economic rent or surplus returns. Indeed, the presence of the "dissatisfied landlord" is emphatically represented in the current Libyan situation as the military government strives to persuade oil companies to increase crude posted prices and thereby increase the share going to the government coffers.

On the other hand, the Canadian situation is indicative of a country still in the exploration stage of the oil industry. In terms of the Adelman argument a sufficient inducement to evoke such exploration is not rent at all but a cost. In the Canadian context, this inducement is in the form of tax concessions, particularly the percentage depletion allowance. The questions of whether Canadian financial incentives are effective in encouraging such exploration and, even more fundamentally, whether financial concessions are actually necessary to encourage these activities, will be the principal items to be discussed in the following analysis of present Canadian concessions.

#### Percentage Depletion

The Canadian percentage depletion allowance in its present form has no similar counterpart in any of the other ten countries discussed. Indeed in nine of those



countries there are no provisions at all for depletion and the United States concept differs considerably, principally being a gross income allowance based on individual properties while Canadian depletion is a net income concept taken on the aggregated properties of any one individual or firm.

Criticisms. The Canadian percentage depletion concept was found to be an extremely expensive incentive for encouraging mineral and petroleum exploration by the Carter Commission for the following reasons:<sup>1</sup>

1) The incentive is related to current profit and not to costs. The after-tax rate of return is increased and this increases the value of mineral and petroleum resources and hence encourages exploration. If the incentive was related to additional exploration, the revenue cost would be lowered in that the exploration that would have taken place without the incentive would not be unduly awarded.

2) Since exploration expenses are deducted before depletion allowances are computed, the more a corporation spends on exploration the less it benefits from depletion.

3) The depletion allowance provides a benefit only to established corporations which need it least since it is

---

<sup>1</sup>Report of the Royal Commission on Taxation, Vol. 4, Kenneth Le M. Carter, Chairman (Ottawa: Queen's Printer, 1966), p. 329.





based on current profit.

Bucovetsky found that the total revenue foregone in the 1961 taxation year as a result of all operators' and non-operators' depletion allowances (not including "cost" depletion to industrial minerals in bedded deposits) was approximately \$53.3 million and the revenue foregone since the discovery of the Leduc field in 1947 totals about 625.4 million.<sup>1</sup>

The objections of the Carter Commission against Canadian depletion regulations can hardly be disputed. Since in the final analysis, the only reason for depletion must be one of incentive to persuade people to risk their money and thereby encourage exploration, one of the glaring weaknesses of Canadian percentage depletion is the net income concept whereby the more a company spends on exploration the less it immediately benefits from depletion. This is plainly seen when we consider a company that is currently spending large amounts on exploration. These expenditures are then deducted from gross profits on sales (revenues less cost of goods sold) along with other expenses to determine net profits before taxes. Since it is on the latter figure that depletion allowances are calculated we have the case where a company whose exploration and other expenses equal gross profits on

---

<sup>1</sup>M. W. Bucovetsky, op. cit., Table A-1, p. 142.





sales receive no benefit at all from the depletion allowance in that year. The related major criticism often levied against the present allowance is that depletion applies to all production profits regardless of the exploration effort of the taxpayer and this too is a valid criticism on a concession supposedly designed to encourage exploration.

Others, particularly the oil companies themselves, argue further that in the United States it is possible for an oil producer to operate for many years without paying income tax but at the same time to obtain his "return" from percentage depletion since it is based on gross income. Under Canadian laws, on the other hand, it is not possible to obtain this "return" in the early stages of production since after the write-off of exploration and development expenditures there is no net income and therefore consequently no depletion allowance. It is argued that this means a reduction in investment in the petroleum industry for those who expect an early "return" on their investment.

The basic criticism generally levied by academic economists against percentage depletion as it applies to mineral industries is that it is non-neutral with respect to the allocation of resources, leading to an excessive application of resources to the finding and production of affected minerals. One of the most explicit criticisms of



this sort, aimed at the United States' provisions but also applicable to Canada, was given by Arnold Harberger.<sup>1</sup> Asserting that tax neutrality with respect to resource allocation requires equal taxation of the return to capital in all uses and industries, Harberg makes his points as follows: Suppose two capital assets, one an industrial machine and the other a mineral deposit to which percentage depletion applies. Assume that these two assets are equal in cost and that the streams of income expected from them are equal in present value. With no income tax, the two assets would be equally attractive to investors. But with an income tax and percentage depletion, the effective income tax rate would be lower for the owner of the mineral deposit. Consequently the mineral deposit would have a higher present value than the machine and would be a more attractive investment. Therefore, the effect of percentage depletion is to alter the allocation of resources in favor of finding and developing mineral deposits.

However, the proposition advanced by Harberger

---

<sup>1</sup>U.S. Congress, "The Taxation of Mineral Industries," by Arnold C. Harberger in Federal Tax Policy for Economic Growth and Stability, Compendium of papers presented to the Joint Committee on the Economic Report, 84th Cong. 1st sess., 1955.



and others<sup>1</sup> was challenged by Stephen L. MacDonald in an article published in 1961.<sup>2</sup> MacDonald demonstrated that given inter-industrial differences in normal rates of return on investment and in normal rates of capital turnover, a flat-rate corporate income tax is generally non-neutral with respect to the allocation of resources, so that differential tax treatment may in some instances be consistent with neutrality. Further, MacDonald found, the present tax provisions applying to oil and gas production seem to be consistent with allocative neutrality as between that industry and manufacturing, the logical standard of comparison.

#### Gross Depletion as a Solution

It has been suggested by some that most of the inefficiencies of the existing Canadian provisions would be overcome by the adoption of the gross depletion concept presently prevailing in the United States. Applying the gross concept to the criticisms of net depletion previously discussed, it is contended that:

---

<sup>1</sup>See for example: Peter O. Steiner, "Percentage Depletion and Resource Allocation," John A. Menge, "The Role of Taxation in Providing for Depletion of Mineral Reserves," and Horace M. Gray, "Tax Reform and the Depletion Allowance," all in Tax Revision Compendium, Compendium of papers presented to the Committee on Ways and Means, U.S. House of Representatives, November, 1959.

<sup>2</sup>Stephen L. MacDonald, "Percentage Depletion and the Allocation of Resources: The Case of Oil and Gas," National Tax Journal, XIV (December, 1961), pp. 323-336.







1) The gross concept is still not related to costs but is even more based on current income than net depletion. Rather than reducing the revenue cost as would relating the incentive to additional exploration expenditures this concept would serve only to increase the loss of tax revenue.

2) The objection that the more a corporation spends on exploration the less it benefits from net depletion would in fact be eliminated. But although the bias against those who explore would no longer exist, the level of exploration expenditures would now be completely irrelevant since depletion would be based on the gross income figures determined before exploration expenditures were considered.

3) The allowance would continue to provide a benefit only to established corporations which need it least being based on current profits.

4) The argument that gross depletion enables an oil producer to produce for many years without paying taxes and to obtain his "return" from percentage depletion is likely a valid point but only desirable from the oil companies point of view since it allows a further escape from paying their fair share of the tax burden. The argument that the lack of this advantage could mean a reduction in investment in the petroleum industry by those who expect an early "return" is difficult to verify one way or the other but there has been no evidence seen which supports that



investors are losing out here. On the other hand, investment has continually taken place in the petroleum industry in other countries where there is no depletion allowance.

5) The debate over whether or not percentage depletion causes a re-allocation of resources continues and has not been resolved in any satisfactory manner. The arguments of Harberger and McDonald have been briefly discussed to at least indicate the opposing views in this confrontation.

An additional point to be considered is the benefit permitted, by today's tax laws, to taxpayers who will commence operations in so-called depressed areas. Such areas, in many instances, may be considered uneconomic at best in that the establishing of industry there increases costs (by being far removed from sources of supply and the principal market area, for example). It is not the purpose here to argue whether this is a correct policy or otherwise but merely to point out that there is a school of thought which appears to believe in this method. The belief here is that percentage depletion was originally designed specifically as a device to cause a re-allocation of resources into high risk exploration activities. The point is not that percentage depletion causes a re-allocation into the extractive industries but as a device designed to increase exploration activities, it is not



effective under the gross concept although even more ineffective under the net concept.

The present Canadian net depletion is based on aggregated properties and the effects of instituting a gross concept on the same basis was the subject of the foregoing discussion. However, the United States' allowance based on gross income is calculated on disaggregated properties. Therefore, if a property does not provide any income there is no depletion allowance and the sums spent for exploration on such properties may be only utilized as an offset against future income. If the allowance is based on aggregated properties, there is no more direct encouragement of exploration but the exploration costs on non-income earning property may be immediately expensed in the overall calculation of taxable income. The effect then is to reduce this taxable income figure and thereby reduce taxes. Only in this indirect way does a company gain any benefit from exploration activities on property not yet earning income. Thus, under the gross concept, the aggregation of properties serves only as a further means of tax avoidance with no direct influence on exploration activities.

One final feature of the United States' provisions, and an important one as mentioned earlier,<sup>1</sup> is the

---

<sup>1</sup>Supra., p. 41.





elimination of "off property" exploration (expenses connected with unproductive acreage) in the calculation of the net income limitation (that is, the depletion allowance is limited to 50 per cent of net taxable income). This provision has the advantage in that if large sums are spent for exploration on unproductive acreage a company is not limited in its depletion allowance as a result of such exploration activities. This seems to be a necessary ingredient of any net income limitation on depletion allowances.

#### Recommendations

Originally, depletion allowances were intended to recognize that a pool of oil was of a limited size and that part of the proceeds of the sale of petroleum was a return of the capital investment in the resource. In those days many of the costs of acquiring mineral rights and exploring were not deductible for tax purposes and depletion allowances made up for this fact. However, over the years more and more of these costs have become deductible, until now practically all such costs may be expensed. Considering these developments and the fact that no other country in this study, save the United States, has any type of depletion provisions the only possible case that can be made for depletion allowances in Canada is that they are necessary to encourage





exploration and then they must be directly tied to such expenditures if they are to operate anyway efficiently (that is, accomplish their objective at minimum revenue cost). This encouragement of exploration could be necessary in Canada for a number of reasons including: Costs of producing a barrel of oil in Alberta (excluding royalties and taxes) are estimated to be about 75 cents compared with about 17 cents in Kuwait and Iran and 53 cents in Libya;<sup>1</sup> the estimated reserves per producing well in Canada average about 450,000 barrels whereas the comparable figures in the principal producing nations are: Venezuela 1.5 million; Libya 38 million; Qatar 60 million; Kuwait 100 million; Saudi Arabia 200 million; Iran and Iraw 250 million.<sup>2</sup> Further the average daily production from a Canadian well is about 47 barrels whereas Venezuela's daily well production is 360 barrels, Libya's 3,200 while the Middle East varies from 3,600 in Kuwait to 13,500 in Iraq.<sup>3</sup> Another factor to be considered is that Canada is in fact still only in the initial (exploration) stage of petroleum growth whereas all the other countries considered here have matured beyond this stage and the development stage and are now all fully matured commercial producers.

---

<sup>1</sup>See Chart on page

<sup>2</sup>Journal of Canadian Petroleum (January-March, 1970), p. 20.

<sup>3</sup>Ibid.



The recent tax reform proposals suggest a system whereby depletion allowances would have to be "earned".<sup>1</sup> The proposed formula is that for every \$3 of eligible expenditures made a taxpayer would earn the right to \$1 of depletion allowance. The allowance would be subject to a maximum of one-third of production profits but a taxpayer could only deduct these maximums if he spends enough on exploration for or development of mineral deposits in Canada. This proposal has certain obvious benefits over both gross and net depletion but unfortunately is still connected to other items besides exploration expenditures. In particular, the allowance being calculated on development as well as exploration outlays will only again encourage the development of known reserves rather than a search for new reserves.

It has been stated that the only possible case for depletion is for the encouragement of exploration, if it is necessary at all, and then it must be directly tied to exploration expenditures alone if it is to fulfill its purpose with any appearance of efficiency. However, it is questioned if any kind of depletion allowance is really necessary for this purpose and the absence of such a concession many other oil producing nations lends support to this suspicion (although the United States allows

---

<sup>1</sup>E. J. Benson, Minister of Finance, Proposals for Tax Reform (Ottawa: Queen's Printer, 1969), p. 67.



depletion on overseas investment). As mentioned later in the discussion on capital flows, international capital destined for petroleum extraction is most likely invested where the probability of discovery is the greatest and is not appreciably affected by most incentives.

### Exploration and Development Expenses

The rapid write-off of exploration and development expenditures is a concession feature of all of the countries discussed with the single exception of Venezuela where such costs must be capitalized. The Canadian provisions compare almost exactly with those of the Middle East and North Africa where these costs, including geological and geophysical expenditures, may also be immediately expensed in computing taxable income. These expensing allowances are not quite as broadly defined in the United States since they do not include geological and geophysical costs.

As a device intended to cause the re-allocation of resources, the immediate expensing of exploration and development costs was found by the Carter Commission to be the most efficient of the present concessions available to the extractive industries in Canada.<sup>1</sup> It has the virtue that there is a direct relationship between the stimulus

---

<sup>1</sup>Report of the Royal Commission on Taxation, Vol. 4, op. cit., p. 330.







and the desired response (encouragement of further exploration). The Commission however, subjected the present deduction provisions to two major criticisms:<sup>1</sup>

1) They are more advantageous to those corporations which have operating income and so can immediately utilize the rapid write-off, than those who do not.

2) The privilege applies to all stages of pre-production activity. Given that the risks of failure have been greatly reduced by the development stage, the direct effect of the rapid write-off provisions for development costs is likely to be a more rapid development of known petroleum reserves rather than a search for new reserves. This situation was aggravated, at least until the mid sixties, by the lack of restrictions on the number of development wells that were permitted to be drilled for extraction of oil from any one pool. The Oil and Gas Conservation Board in Alberta now enforces 320 acre spacing of development wells. As a result of this over-drilling, prior to the mid sixties, costs were raised substantially. In his forthcoming book David Quirin estimated that during the years from 1951-1964 there was a waste of \$929.9 thousand (due to over-drilling) that could have been avoided with 320 acre spacing.<sup>2</sup>

---

<sup>1</sup>Ibid.

<sup>2</sup>David Quirin, in his forthcoming book, Chap. 6, p. 54.



The first of these criticisms pointing out the advantage to established corporations which have operating income could possibly be overcome by allowing such corporations to deduct less than the full amount of these expenditures. On the other hand, relating these expenses to Canada's provisions on the carrying-forward of business losses, corporations which do not have any operating income in the year in which the expenses occur could be permitted to claim an amount greater than the actual expenses in those carry-forward years when such claims are actually utilized.

Another defect in this context is that taxpayers who do not have as their principal business either mining, the production of oil or allied activities may deduct exploration and development costs only from income obtained from mineral properties. This implies that taxpayers who do not meet the "principal business test" and are unsuccessful in their mineral projects suffer losses that are not deductible for income tax purposes. This has no doubt had the effect of discouraging exploration by taxpayers in this category as it would aggravate the natural high risk in this phase of the industry.

One obvious solution to this dilemma would be to not differentiate between classes of taxpayers under the "principal business" rule and to allow all those involved in the industry to deduct exploration expenditures from



their income whatever the source. This would likely encourage Canadian companies to have a share in the economic development of our petroleum resources. In the final analysis this issue reduces to a value judgement. Although this policy would promote the involvement of Canadians in the development of the industry it must be kept in mind that such amounts spent on exploration would otherwise have been taxes at about 50 per cent and this, in essence, brings the Government of Canada into the industry as a full partner. It is not accepted here that allowing Canadians who may receive substantial incomes from other enterprises to use tax monies, so to speak, to engage in petroleum exploration is the most economical or equitable means of solving this present problem.

It is believed that a more acceptable solution has been suggested in the Government of Canada's recent tax proposals<sup>1</sup> which recommended that such taxpayers who do not qualify under the "principal business" rule be entitled to put their exploration and development expenses into an asset class and to capitalize them at 20 percent of book value annually or expense them up to the amount of income received from mineral properties. This proposal has the advantage, in the case where the principal business of the taxpayer is not the production of petroleum, of substantially reducing the effective Government participation in such

---

<sup>1</sup>E. J. Benson, op. cit., p. 64.





ventures.

The second major criticism of the Carter Commission was that the provision allowing the immediate expensing of development expenditures has the direct effect of encouraging a more rapid development of known reserves rather than a search for new reserves. Given the general purpose of concessions (to encourage exploration), it is rather surprising that no recommendations were made regarding development expenditures in the tax reform proposals. It is contended here that the present situation is not satisfactory and a more realistic, but not ideal, provision would allow the expensing of only exploration expenditures and provide for development costs to be only capitalized since the risk of failure is greatly reduced by this time. This would at least bring the concession more in line with its objective of encouraging exploration, the phase of the industry involving the most risk, rather than promoting the development of known petroleum reserves if indeed incentives for exploration are really necessary as questioned elsewhere.

However, assuming that encouragement to exploration is required, even the immediate expensing of exploration costs is a form of indirect subsidy since it grossly underestimates the profits of oil companies. From an economic standpoint probably the closest to ideal solution would provide for direct subsidies to be paid the industry for





exploration purposes. Being the most direct means available to assist the establishment of any industry, direct subsidies could be paid specifically to those areas of mineral extraction where exploration was most needed at the time and the "openness" of the direct subsidy system would allow the concession to be brought under much closer scrutiny by public officials and the Canadian public.

This is not to imply that any given subsidy system would be a panacea for all the maladies in present Canadian concession arrangements. A uniform system of subsidy outlays by government could possibly even worsen the situation if they merely required certain activities to be undertaken without being conditional upon efficient use of resources or the evolvment of future taxable income. As a basis for maintaining stimulation and competitiveness of whole major industries, a general subsidy system may prove very difficult to administer effectively, perhaps producing unwarranted windfalls in some cases and failing to reach its objectives in others.

#### Treatment of Business Losses

The present system of carry-backs and carry-overs of business losses in the Canadian petroleum industry (back one and forward indefinitely) was found by the Carter Commission to be more reasonable than in the case of other



businesses (back one and forward five).<sup>1</sup> Indeed, it was recommended that business losses of all taxpayers be permitted to be carried back two years and onward indefinitely. In addition to this proposal having a stabilizing effect on the economy, particularly during downswings when tax refunds in respect of loss carry-backs would encourage business expenditure, an infinite carry-forward period would aid businesses that require a long development period and the two year carry-back would be more reasonable for businesses that are winding up.

The Canadian carry-forward provisions compare favorably with the other major oil producing countries examined. Only the United States, Kuwait and Nigeria can match the indefinite carry-forward period, while Venezuela allows only three years, Iraq five years and Libya ten years. There are no carry-over provisions in Algeria, Iran, Qatar or Saudi Arabia.

It is the belief here that the infinite carry-forward period is necessary in Canada since astronomical sums may have to be expended before productive wells are discovered and many years may pass before companies with low incomes, especially recently established firms, may be able to deduct their accumulated exploration expenditures. Lending verisimilitude to this argument is the data presented

---

<sup>1</sup>Report of the Royal Commission on Taxation, Vol. 4, op. cit., p. 253.



to the Carter Commission by the Canadian Petroleum Association indicating that of 8,121 new field wildcat wells drilled in western Canada from 1947 to 1962, 1,548 or 19.1 per cent showed some signs of initial success, and 597 or 7.4 per cent proved capable of production.<sup>1</sup> Further, moving a drilling rig into location in inaccessible areas (say the far north or on oceans) may cost as much as \$100,000 and costs of drilling a well may vary from \$20,000 in normal circumstances to perhaps \$2 million for very deep holes in the Canadian foothills.<sup>2</sup> Therefore since huge sums may be spent on exploration, a long carry-forward period is required if such outlays are going to be eventually expensed.

#### Shareholders' Depletion Allowance

This feature is distinctively Canadian among all the producing countries discussed. The Carter Commission concluded that the effect of this allowance is not completely capitalized in share prices so there may well be some incentive for individuals in the higher tax brackets to invest in the mineral industries and thus contribute to real investment in these industries. However, such effects must be considered as "distinctly minor" and must

---

<sup>1</sup>M. W. Bucovetsky, op. cit., p. 30.

<sup>2</sup>A. Gordon Burton, op. cit., pp. 2-3.





in any event be weighed against the revenue foregone. Bucovetsky estimated the total revenue foregone in the 1961 taxation year as a result of shareholders' dividend depletion to be approximately \$1.5 million.<sup>1</sup>

The tax reform proposals suggest that this concession was originally designed to recognize that the corporation might in fact be paying dividends out of capital. Under its recommendations this fact would be more accurately recognized by the deduction granted to taxpayers for losses realized on shares which they have held.<sup>2</sup>

Although there is no readily available means of verifying the estimated \$1.5 million revenue loss, it would appear that this concession (which is 10, 15 or 20 per cent depending on the proportion of the income of the corporation which is derived from mineral production) is largely ineffective from the standpoint of resource allocation and for this reason serves no significant useful purpose.

#### Effect of Tax Concessions on Capital Flows

The Carter Commission urged that Canada must offer tax concessions equivalent to other countries, particularly

---

<sup>1</sup>M. W. Bucovetsky, op. cit., p. 28.

<sup>2</sup>E. J. Benson, op. cit., p. 67.



the United States, if the rate of foreign investment in the extractive industries is to be maintained.<sup>1</sup>

A substantial portion of foreign direct investment in Canada is probably related to considerations other than the after-tax rate of return to the parent corporations. The securing of sources of supply, investment in a politically stable country near the U.S. market and the maintenance of a share in the world market are clearly significant factors in the decision to invest in Canada. The Commission found that the after tax rate of return of many corporations are either not computed with sufficient precision to reflect many of the tax concessions now offered or these concessions are not a significant factor in the decision on whether or not to invest. Thus, changing the tax system may be of greater significance in the assessment of factors other than the rate of return.

It is contended by some that international mineral capital is exclusively devoted to mineral and petroleum extraction and is seldom available for other forms of investment so it is invested where the probability of finding ore or oil is the greatest and is insensitive to the after-tax rates of return.<sup>2</sup>

In some circumstances, however, it would undoubtedly

---

<sup>1</sup>Report of the Royal Commission on Taxation, Vol. 4, op. cit., p. 314.

<sup>2</sup>Ibid., p. 315.



be the case that higher Canadian taxes on such income would reduce foreign investment in an extractive industry such as petroleum with the loss of one of the principal benefits namely, the revenue from taxing the income generated by such investment. Further, if Canada does not match the concessions to the extractive industries given by other countries, Canadian capital destined for these industries may be invested abroad. This is an argument put forth by many to maintain or even increase the concessions now given Canadian extractive industries.<sup>1</sup>

However, it may be questioned if tax concessions are in fact the real reason why the Canadian petroleum industry is dominated by the major multi-national corporations, mostly American. These major oil companies dominate the production of not only Canada but most of the free world. Given their international stature, financial resources, technical skill and their personal interest in gaining new sources of supply it was perhaps to be expected that they should control Canada's recent development in the industry. The predominance of vertical integration in the petroleum industry and the vested interests of these companies in finding new reserves may be the most important variable, not tax concessions, in encouraging these companies to invest in Canada.

---

<sup>1</sup>Ibid., pp. 314-318.





If foreign investment was found to be undesirable on the other hand, probably the most efficient means of limitation would be through direct controls rather than tax concessions favoring Canadian companies over foreign thus leading to an artificially high level of domestic investment in the industry. The source of excessive investment may perhaps be traced to external considerations (for example, the nested interest of the huge integrated multi-national corporations) so from Canada's point of view the misallocation of resources is likely relatively minor. Such external considerations have the virtue of imposing no real cost on Canada's treasury. There seems to be no valid reason to institute special tax concessions to Canadian companies thereby causing a drain on local treasuries to replace the present foreign sources of investment funds.

### Conclusions

In earlier sections of this paper where comparisons of Canadian - Middle Eastern and Canadian - North African petroleum taxation were discussed it was stated that the combined governments' share of the gains of petroleums in Canada is in the area of 43 per cent whereas the shares of Middle Eastern and North African governments is in the area of 58 per cent.<sup>1</sup> The following chart is presented in

---

<sup>1</sup>See Supra., p. 91 and p. 120.





evidence of these statements:

	<u>Iran</u>	<u>Kuwait</u>	<u>Libya</u>	<u>Canada (Alta.)</u>
Posted Price/ bl.	\$1.79	\$1.59	\$2.23	\$ 2.42
Discount <sup>4</sup>	<u>.14</u>	<u>.13</u>	<u>.18</u>	<u>-</u>
Tax Reference Price	1.65	1.46	2.05	2.42
Less:				
Costs: Pro- ducing	.08	.10	.21	.35
Expl., Dev., Facilities	.09	.07	.32	.34
Royalties <sup>5</sup>	<u>.22</u>	<u>.20</u>	<u>.28</u>	<u>.25</u>
Taxable Income	1.26	1.09	1.24	1.48
Income Tax <sup>6</sup>	.63	.55	.62	.49
Total Govt. Income/B1.	<u>.85</u>	<u>.75</u>	<u>.90</u>	<u>.74</u>
Income Tax	.63	.55	.62	.49
Royalties	.22	.20	.28	.25
Govt. share of Taxable profits <sup>7</sup>	$\frac{.85}{1.48}=57\%$	$\frac{.75}{1.29}=58\%$	$\frac{.90}{1.52}=60\%$	$\frac{.74}{1.73}=43\%$
Govt. share of 'Real' Taxable <sup>8</sup> Profits	$\frac{.85}{1.13}=75\%$	$\frac{.75}{1.03}=73\%$	$\frac{.90}{1.11}=80\%$	$\frac{.74}{1.73}=43\%$

- Notes:
- 1) The method used here is taken from "Middle East Payoff", The Economist (January 23, 1965), pp. 351-353.
  - 2) The figures used for Iran, Kuwait and Libya are in U.S. dollars taken from "Competitive Environments of the International Oil Industry," Journal of Canadian Petroleum (January-March, 1970), pp. 18-22 and represent January, 1968 conditions.



- 3) The Canadian figures are taken from "U.S. Doubles Canada's Costs," Oilweek (February 23, 1970) and are intended to indicate only the comparative range of costs in Alberta, not absolute cost figures, for the 1964-68 period. The original figures in Canadian dollars have been converted to U.S. dollars at Can. \$1 = U.S. \$.925.
- 4) An eight per cent discount has been permitted off posted prices for income tax purposes for Iran, Kuwait and Libya -- all OPEC member countries. Although this discount varied for different grades of crude and for different years, this figure represents the approximate discount permitted in 1968 for about 33° API.
- 5) Royalties are computed at 12.5 per cent of posted prices in Iran, Kuwait and Libya. The average royalty in Alberta as a result of the sliding scale formula and low production per well was 10.3 per cent for the 1964-68 period.
- 6) Income taxes were computed as 50 per cent of taxable income in Iran, Kuwait and Libya in accordance with their 50-50 sharing agreements. The Canadian income tax was computed as 33 1/3 per cent of taxable profits in accordance with the present provisions.
- 7) In line with the method used in The Economist, see note (1) above, "taxable profits" are taken to mean the tax reference price less costs (excluding royalties). The Economist calls this "the ostensible share of taxable profits."
- 8) The results in (7) assume that crude is sold at posted prices. However, the Journal of Canadian Petroleum (January-March, 1970) estimated that the "realized" prices of the crude considered here were: Iran \$1.30; Kuwait \$1.20 and Libya \$1.64. Therefore the Government share of real taxable profits is computed by taking the government income per barrel (unchanged) as a percentage of realized price less costs (excluding royalties). It is assumed Canadian crude was sold at posted prices.



- 9) It should be pointed out that beyond posted prices and the royalty and tax rates all other items in this chart must be considered only as "ball park" figures since their true amounts are seldom, if ever, revealed.

From this chart it is seen that the Canadian governments' (federal and provincial) ostensible share of taxable profits from petroleum is about 15 per cent less than the shares of Iran, Kuwait and Libya. Although government income per barrel of Alberta crude (.74) compares very favourably with the government income per barrel in Kuwait (.75) it is substantially less than the income per barrel received by governments in Iran (.85) and Libya (.90). It is the percentages in the last row of the chart (government share of 'real' taxable profits) that are likely closer to the true situation. Most Middle Eastern and North African countries were selling at discounts of 24-27 per cent in early 1968<sup>1</sup> and this increases the relative share of governments in these countries to 73-80 per cent. The Canadian percentage is just much less being again about 43 per cent.

It would probably be presumptuous to recommend as a consequence of these estimates that the Canadian government immediately raise the effective tax rate on oil companies. A basic consideration is that Canada is still in fact in the exploration stage of oil development while the other

---

<sup>1</sup>Journal of Canadian Petroleum (January-March, 1970), p. 20.







three countries here have outgrown the first two stages (exploration and development) and are now full grown commercial producers. There appears to have been an evolution of effective tax rates in most countries being quite low (similar to Canada's rate) in the exploration stage and increasing to the 50-50 sharing agreement (beyond royalties) when the country reaches the production stage. As a particular example consider Libya. The first well was drilled in Libya in 1956 and during these early years a gross depletion allowance of 25 per cent was permitted. However, Libya became a major producer in a very short time and the depletion allowance was discontinued in 1961.

Given these considerations, it is not the purpose here to contend that the Canadian governments' share of the gains from petroleum should in fact be equal to the shares of the major producing nations. However, it has been questioned whether present concessions to encourage exploration are efficient in accomplishing this objective at minimum revenue cost. It appears that the Canadian governments' share can be at least increased without detrimental effects on exploration.

The principal conclusions from the analysis of present Canadian concessions may be summarized as follows:

- 1) The net percentage depletion allowance is an extremely expensive incentive in terms of lost revenues



and is not connected to costs (exploration in particular) but is based on current profit. The allowance also gives its principal benefit to established corporations and the more any corporation spends on exploration the less it benefits from depletion.

2) Applying gross depletion as an alternative would not correct most of the inefficiencies and inequities of the net concept.

3) A system of government subsidies is seen as being the most efficient means of encouraging exploration and should replace most of the existing concessions particularly the depletion allowance while acknowledging the difficulties likely to be presented in determining their basis of payment and efficient administration.

4) The rapid write-off of exploration expenditures is probably the most efficient of present concessions since it does directly encourage exploration and should therefore be retained with some adjustments. However, the inclusion of development expenditures in the present rapid write-off provisions results principally in the encouragement of the development of existing wells rather than promoting further exploration and should therefore be capitalized and not expensed.

5) The present treatment of business losses in petroleum (infinite carry-forward period) is necessary and should be retained.



6) The shareholders' depletion allowance serves no useful purpose and should be discontinued.



## B I B L I O G R A P H Y





## BIBLIOGRAPHY

Books and Collections

Adedeji, Adebayo. Nigerian Federal Finance: It's Development, Problems and Prospects. London: Hutchinson Educational Ltd., 1969.

Adelman, M. A. "The World Oil Outlook," Natural Resources and International Development. Edited by Marion Clawson. Baltimore: The John Hopkins Press, 1964.

Alnasrawi, Abbas. Financing Economic Development in Iraq: The Role of Oil in a Middle Eastern Economy. Praeger Special Studies in International Economics and Development. New York: Frederick A Praeger, 1967.

Anderson, Arthur & Co. Tax and Trade Guide: Canada. Tax and Trade Guide Series, No. 6. Toronto: Arthur Anderson & Co., 1963.

\_\_\_\_\_. Tax and Trade Guide: Venezuela. Tax and Trade Guide Series, No. 27. Toronto: Arthur Anderson & Co., 1968.

Basic Oil Laws and Concession Contracts (Original Texts). Middle East, Vols. I and II, Supp. I - XXVI; North Africa, Vols. I and II, Supp. I - XII; South America, Vols. I and II, Supp. I - XIX. New York: Petroleum Legislation Co., 1970.

Cattan, Henry. The Evolution of Oil Concessions in the Middle East and North Africa. New York: Oceana Publications, Inc., 1967.

El Mallahh, Ragaei. Economic Development and Regional Cooperation: Kuwait. Chicago: The University of Chicago Press, 1968.

Helleiner, Gerald K. Peasant Agriculture Government, and Economic Growth in Nigeria. Homewood, Illinois: Richard D. Irwin, Inc., 1966.

Hodgson, E. C. Digest of Mineral Laws of Canada. Ottawa: Mineral Resources Division, Department of Energy, Mines and Resources, 1968.



International Petroleum Institute, Inc. International Petroleum Industry, Vol. II. New York: Gordon H. Barrows, 1967.

Issawi, Charles and Yeganeh, Mohammed. The Economics of Middle Eastern Oil. London: Faber and Faber, 1962.

Krause, Lawrence B. and Dam, Kenneth W. Federal Tax Treatment of Foreign Income. Washington: The Brookings Institution, 1964.

Kubbah, Abdul Amir Q. Libya: Its Oil Industry and Economic System. Beirut: Rihani Press, 1964.

Levy, Fred D. Jr. Economic Planning in Venezuela. Praeger Special Studies in International Economics and Development. New York: Frederick A. Praeger, 1968.

Lewis, D. E. and Thompson, A. R. Canadian Oil and Gas. Toronto: Butterworth and Co. (Canada) Ltd., 1960.

Lichtblau, John. "Oil in the North African Economy," State and Society in Independent North Africa, Vol. I of The James Terry Duce Memorial Series. Edited by Leon C. Brown. Washington: The Middle East Institute, 1966.

Lieuwen, Edwin. Petroleum in Venezuela: A History. New York: Russell and Russell, 1954.

Longrigg, Stephen H. Oil in the Middle East: Its Discovery and Development. 3rd ed. London: Oxford University Press, 1968.

Mughraby, Muhamad A. Permanent Sovereignty Over Oil Resources: A Study of Middle East Oil Concessions and Legal Change. Beirut: The Middle East Research and Publishing Center, 1966.

Marcus, Edward and Mildred, R. Investment and Development Possibilities in Tropical Africa. New York: Brookman Associates, 1960.

Martinez, Anibal R. Our Gift, Our Oil. Netherlands: N.V. Drukkerij D. Reidel Dordrecht, 1966.

McDonald, Stephen L. Federal Tax Treatment of Income from Oil and Gas. Studies of Government Finance. Washington: The Brookings Institution, 1963.





- Mummery, David R. The Protection of International Private Investment: Nigeria and the World Community. Praeger Special Studies in International Economics and Development. New York: Frederick A. Praeger, 1968.
- Olisa, Martin M. "Comparative Study of the Acquisition of Oil and Gas Rights in Africa." Unpublished LL.M. thesis, University of Alberta, 1967.
- Organization of Lybrand, Ross Bros. & Montgomery. Montgomery's Federal Taxes. New York: The Ronald Press Company, 1964.
- Owens, E. A. The Foreign Tax Credit. Cambridge, Mass.: The Law School of Harvard University, 1961.
- Pawera, John C. Algeria's Infrastructure: An Economic Survey of Transportation, Communication and Energy Resources. Praeger Special Studies in International Economics. New York: Frederick A. Praeger, 1964.
- Petroleum Legislation, Vols. I and II. New York: Gordon H. Barrows, 1970.
- Petroleum Taxation International. New York: Petroleum Taxation International, 1969.
- Richman, P. B. Taxation of Foreign Investment Income: An Economic Analysis. Baltimore: The Johns Hopkins Press, 1963.
- Rocky Mountain Mineral Law Foundation. Law of Federal Oil and Gas Leases. New York: Matthew Bender and Company, 1970.
- Sayegh, Kamal S. Oil and Arab Regional Development. Praeger Special Studies in International Economics and Development. New York: Frederick A. Praeger, 1968.
- Stapleton, G. Brian. The Wealth of Nigeria. Ibadan: Oxford University Press, 1967.
- Raher, Abdulhady H. Income Determination in the International Petroleum Industry. London: Pergamon Press, 1966.
- Tanzer, Michael. The Political Economy of International Oil and the Underdeveloped Countries. Boston: Beacon Press, 1969.





## Reports and Commissions

Brecker, Irving and Reisman, Simon S. Canada-United States Economic Relations. Study for the Royal Commission on Canada's Economic Prospects. W. L. Gordon, Chairman. Ottawa: Queen's Printer, 1957.

Bucovetsky, M. S. The Taxation of Mineral Extraction. Study of The Royal Commission on Taxation, No. 8. Ottawa: Queen's Printer, 1967.

Burton, A. Gordon. Comments re Taxation of the Oil and Gas Industry. Study of the Royal Commission on Taxation, No. 12. Ottawa: Queen's Printer, 1967.

Economic Development of Iraq. Report of a Mission Organized by the International Bank for Reconstruction and Development at the Request of the Government of Iraq. Baltimore: The John Hopkins Press, 1952.

Economic Development of Kuwait. Report of Missions Organized by the International Bank for Reconstruction and Development at the Request of the Government of Kuwait. Baltimore: The John Hopkins Press, 1965.

Economic Development of Libya. Report of a Mission Organized by the International Bank for Reconstruction and Development at the Request of the Government of Libya. Baltimore: The John Hopkins Press, 1960.

McDonald, John G. Taxation of Income from Natural Resources. Butterworth's Carter Report Study No. 2, for the Royal Commission on Taxation, Toronto: Butterworth and Company, (Canada) Ltd., 1967.

Report of the Royal Commission on Taxation, Vol. 4. Kenneth LeM. Carter, Chairman. Ottawa: Queen's Printer, 1966.

Tazi, Abderrahman. "The Maghreb and Libya," International Development, 1968. Proceedings of the Tenth Anniversary World Conference of the Society for International Development. John H. Adler, Chairman. New York: Oceana Publications, Inc., 1969.

## Public Documents and Government Publications

Alberta, Canada. Mines and Minerals Act, 1962.

Algeria. Statute No. 58-1111 of November 22, 1958.



- \_\_\_\_\_. Franco-Algerian Accord of July 29, 1965.
- \_\_\_\_\_. Ordinance 65-317 of December 30, 1965.
- Benson, E. J., Minister of Finance. Proposals for Tax Reform. Ottawa: Queen's Printer, 1969.
- Libya. The Petroleum Law, 1955 (Law No. 25 of April 21, 1955).
- Nigeria. Petroleum Profits Tax Ordinance, 1959.
- \_\_\_\_\_. Petroleum Profits Tax (Amendment) Decree, 1967.
- United Nations. Statistical Yearbook, 1968. New York: Statistical Office of the United Nations, Department of Economic and Social Affairs, 1969.
- U.S. Congress. House. Joint Economic Committee. "The Taxation of Mineral Industries," by Arnold C. Harberger in Federal Tax Policy for Economic Growth and Stability. Compendium of papers presented to the Joint Committee on the Economic Report, 84th Cong., 1st. sess., 1955.











**B29953**